

NOVEMBER.

(Monthly Issue.)

VOL. XXXVI.]

1892.

[No. 177.

JOURNAL

OR THE

Royal

United Service Institution,

WHITEHALL YARD.

PUBLISHED UNDER THE AUTHORITY OF THE COUNCIL.

EDITOR OF THE LECTURES AND PAPERS—THE SECRETARY.

OF THE FOREIGN SECTION—COL. LONSDALE HALL, LANE R.E.

Authors alone are responsible for the contents of their respective papers.

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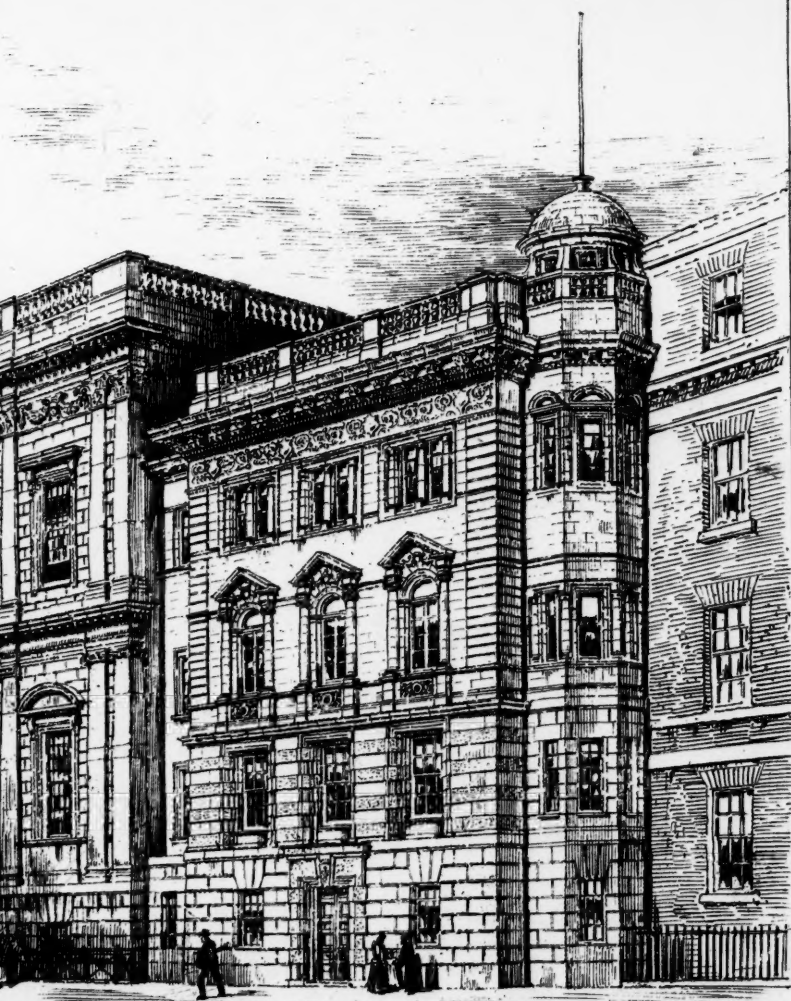
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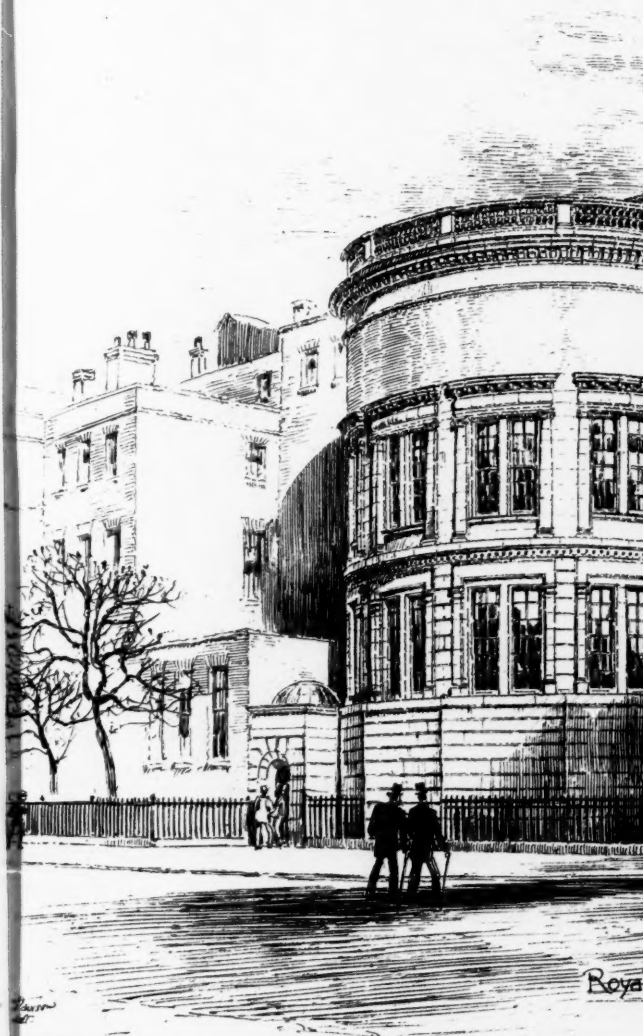
The accompanying views of the new Building are inserted for the information of the Members. It is proposed in a future Number to give Sketches of the Interiors of some of the Chief Rooms.

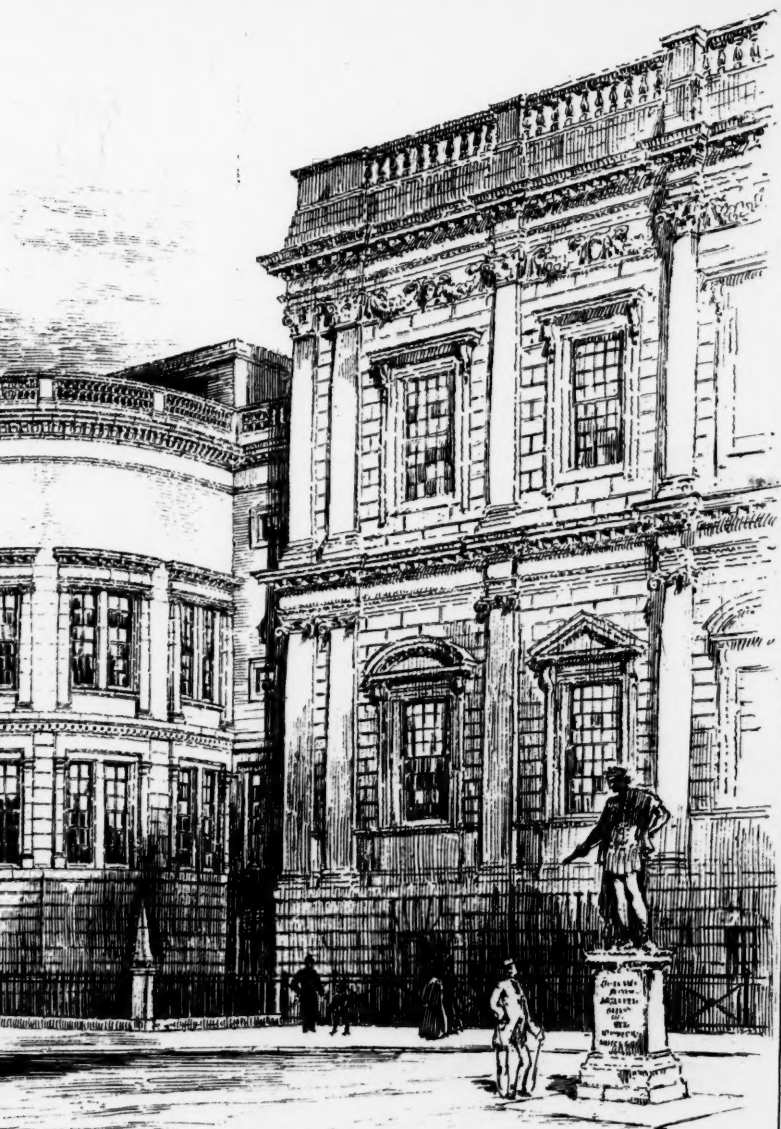




Royal United Service Institution View from Whitehall
Aston Webb & E. Ingress Bell
Architects

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View from Whitehall Gardens

The Journal

OF THE

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VOL. XXXVI.

NOVEMBER, 1892.

No. 177.

[Monthly Issue.]

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 Robson, A., Col. Dur. Arty. (W. Div.
 R.A.).
 Blaksley, E., Lt.-Col. R.A.
 Lloyd, W. N., Capt. R.A.
 Keir, J. L., Capt. R.A.
 Prescott-Decie, Lieut. R.A.
 Symonds, G. D., Lieut. R.A.
 Upcher, R., D.S.O., Col. 1st Bn. Dur. L.I.
 Mansell, G. C., Capt. 1st Bn. Dur. L.I.
 Johnson-Smyth, T. R., Capt. 1st Bn.
 Dur. L.I.
 Norton, R., Capt. 1st Bn. Dur. L.I.
 Parke, L., Capt. 1st Bn. Dur. L.I.
 Morant, H. H. T., Lieut. 1st Bn. Dur.
 L.I.
 Bell, R. F., Lieut. 1st Bn. Dur. L.I.
 Crosthwaite, J. A., Lieut. 1st Bn. Dur.
 L.I.
 Saville, R. C., Lieut. 1st Bn. Dur. L.I.
 Lascelles, A. C., Lieut. 1st Bn. Dur.
 L.I.
 Lascelles, W. C., Lieut. 1st Bn. Dur.
 L.I.
 D'Arcy-Hildyard, R. M., Lieut. 1st Bn.
 Dur. L.I.
 Bridge, W. S., Lieut. 1st Bn. Dur. L.I.
 Elwes, L. E. C., Lieut. 1st Bn. Dur.
 L.I.
 Rose, J. M., Lieut. R.M.A.
 Wright, C. V. R., Lieut. 1st Bn. W.
 Ind. Regt.
 Stevens, B. F., Lieut. 1st Bn. W. Ind.
 Regt.
 Wodehouse, J. H., Col. R.A.
 Farmer, F. C., Major R.A.
 Weir, H. G. C. B., Major R.A.
 Corbett, R., Lt.-Col. R.A.
 Sarel, G. B. M., Lieut. R. Sco. Fus.
 Agnew, Q. G. K., Lieut. R. Sco. Fus.
 Boddy, R. J., Lieut. R. Sco. Fus.
 Bannister, G. S., Lt.-Col. S. Wales
 Bord.
 Wace, E. C., D.S.O., Major R.A.
 Willcock, S., Capt. 2nd Glouc. Regt.
 Western, C. M., Major R.A.
 Housion-Craufurd, W. R., Lt.-Col. late
 Arg. and Suthd. Highrs.
 Simonds, W. B., Capt. 3rd Bn. Hants
 Regt.

THE LAGOS EXPEDITIONARY FORCE, 1892.

In the August number of the Journal appeared a very interesting account of the *Lagos Expedition*, kindly furnished by Captain the Honourable A. Hardinge, the Royal Scots Fusiliers. Colonel A. B. Ellis, Commanding 1st Battalion West India Regiment, has sent to me a letter expressing his dissent from some of the remarks contained in the account. I have much pleasure in inserting in the Journal Colonel Ellis's letter, and one from Captain Hardinge in reply to it.—L. A. H.

*Sierra Leone,
30th August, 1892.*

DEAR SIR,

In the interesting account of the *Lagos Expeditionary Force*, in West Africa, which appeared in the Journal of the Royal United Service Institution for August, the gallant author, Captain Hon. A. S. Hardinge, the Royal Scots Fusiliers, has, I am sure unintentionally, conveyed by implication the idea that West India soldiers are, from health considerations, unfitted for service in the bush in West Africa.

I do not like to intrude upon your valuable space, but, unless these erroneous impressions are corrected, they are calculated to do harm to the regiment to which I have the honour to belong, and I therefore hope you will be able to find room in your Journal for this correction.

The statement to which I refer is to be found at page 917, and runs as follows:

"Of the 100 men and 3 Officers of the West India troops sent down, only 42 men and 1 Officer were fit to proceed to the front, the remainder having already succumbed to fever. These troops cannot be said to be well adapted to bush marching, they require the same rations and commissariat arrangements as European troops. Spats and European shoes are not conducive to great powers of marching when worn by natives; and without possessing the inherent pluck of the white man to struggle and shake it off, they succumb as readily to the ravages of fever as the European."

Many people on reading this would suppose, from the use of the word "already," that the Officers and men of the West India Regiment had succumbed to fever without anything exceptional having occurred to account for it; but when these Officers and men were suddenly ordered to embark for Lagos, they had only just returned from three weeks' active service in the bush in the Tambaka country, where they had undergone much hardship and exposure. The Local Regulations only provide deck passages for West India soldiers proceeding up or down the coast, and during fifteen out of the seventeen days which the voyage from Sierra Leone to Lagos occupied, torrents of rain fell. The scanty awnings afforded no shelter, and day and night the men were constantly wet; and this exposure, coming after the hard work of active service, was the cause of the sickness.

It is a mere matter of detail that 65 West Indians took part in the expedition and not 42 only. Ninety-nine arrived at Lagos, and 34 had to be left there sick, *i.e.*, a little more than a third, instead of more than half. It is of course an unusually large percentage, but when we consider what being constantly in wet clothes for fifteen days means in such a climate as this, the only wonder is that it was not larger.

West Indians do "succumb to the ravages of fever as readily as the European," but they are not so liable to contract fever, and when they do get fever it is rarely

of a severe type. After a residence of six months comparatively few West Indians contract fever at all, while the European becomes worse the longer he stays. The men who went to Lagos had only been four months in West Africa, and were not yet acclimatized. If the climate really had as baneful an effect on West Indians as it has on Europeans, we should have to invalid 400 men to the West Indies annually, while the average invalided is thirty triennially, or ten for one year.

In regard to the other matters touched upon, the fact of the West India soldier requiring the same rations and commissariat arrangements as the European is no real disadvantage except when the movements of very small bodies of men are concerned. The natives of West Africa do not keep supplies of provisions on hand surplus of their own requirements, and after eighteen years' experience of West Africa I only know two or three towns that could meet the demand for food caused by the sudden arrival of 100 men. I except, of course, the sea-port towns. Whenever larger bodies of men have been employed it has always been found necessary to carry supplies, for the country could not furnish what was required.

Even in the present case some difficulty in obtaining food seems to have been met with, and from the accounts in the Lagos papers, it appears that after Jebu Odi was reached, the question of supplies became a matter for serious consideration, and parties had to be sent to the neighbouring villages to induce the natives to bring food. If the Jebus had possessed the spirit of the natives of the Gold Coast and had refused to supply the needs of their foes, it is very probable that the expedition would have failed to secure the objects desired. Personally, I have always found it advantageous to take one's own supplies, even with Houssas, in order to be quite independent.

Of course the only objection to carrying supplies for troops is that it increases the number of carriers, but against that we must set the transport required for the extra ammunition for untrained men, who expend enormous quantities. At pages 918, 919 of the gallant author's account, we read that, though the Houssas and Ibadans carried their own supplies, 600 carriers were required for the Officers, the West Indians, six guns, the ammunition reserve, and hospital, &c.

I dislike making comparisons, but, in order to prove my point, I must mention that in the Tambi expedition, when 25 Officers and 518 regular troops were employed, with three guns and two rocket troughs, the number of carriers for all purposes, rations, hospital, ammunition reserve, guns, &c., never reached 500. From this it would appear that it is more economical of carriers to employ troops than constabulary.

In regard to the question of boots and shoes for Natives, everything of course depends upon whether the Natives are accustomed to wear them. If they are not, they get footsore, but the West Indian is as much accustomed to shoes as the European, and could not march without them. Spats do not increase or diminish a man's marching powers, but I agree that shoes are not the best kind of foot covering, and would much prefer boots. However, even in shoes, these 100 West Indians, in common with the rest of the column, marched from Tambi to Robat, a distance of 76 miles, in three days, which I venture to think is a very creditable performance in a country where the roads were the merest single-file tracks, and where four or five streams had to be forded daily.

Having myself served with the Houssas for two years, and taken part with them in several small expeditions, I may claim to know something of the question of boots *versus* bare feet, and I say, advisedly, that a larger percentage of bare-footed men get laid up from injuries to feet from thorns and stones than of booted men from galls, &c. I have seen 40 per cent. of a force of Houssas rendered unfit for further marching through having to pass through a tract covered with stunted prickly-pears, over which I, in ordinary boots, passed without the slightest inconvenience. But it must be sufficiently obvious that the wearing of boots is an advantage, except for men who are not accustomed to wear them.

As I have necessarily been compelled to some extent to compare West Indians with Houssas, I must be careful to explain that I have no wish to detract in any way from the merits of the latter gallant body. I have a very great admiration for the Houssas, and therefore I am the more sorry to see that the gallant author

has little to say in their favour beyond that they possess personal courage, a quality which I have never found lacking in any negro tribe.

I am less concerned to defend the Houssas from possible misconceptions than my own men, but I think that some portions of the last paragraph on page 920 require explanation. I refer particularly to the words, "notwithstanding that in proximity to the river they appeared imbued with the ascendancy of the Jebu. Permeated as they are by superstition and fetish customs, every allowance must be made for them."

The ordinary reader would, I imagine, gather from this that the check experienced at the river was due to the Houssas hesitating to cross under the heavy fire of the Jebus, and that the Houssas are permeated by "fetish customs," by which phrase the religious customs of the natives are no doubt meant. The check, however, was not due to fear of the Jebus, but to another cause. The religion of the Jebus resembles that of Ancient Greece in every particular, and, like the Ancient Greeks, the Jebus offer human sacrifices in time of need. They had, in this case, offered a human sacrifice to the river-god, to induce him to assist in staying the advance of the British force; and it was a feeling of uneasiness as to what this unknown power might do that made the Houssas hesitate. They are not, however, permeated with "fetish customs." They are Mohammedans, though not, perhaps, very strict ones, and they regard all pagan practices with horror and detestation, though, while detesting them, they are still half doubtful as to whether they do not possess power for evil. In this respect they are on the same footing with many Europeans, notably some of the German missionaries, and we cannot expect a whole tribe of Africans to be so superior to their surroundings as to regard such practices with contempt. Directly the handful of West Indians, who had been held in reserve, were ordered up to the front to lead the way across the river, the Houssas crossed with them without further hesitation.

Considering the implied short-comings of the West Indians and Houssas, it is surprising that the Expeditionary Force ever reached Jebu Odi; but I am convinced that Captain Hardinge has quite unintentionally disparaged, or seemed to disparage, those in whose company he fought.

Yours obediently,

A. B. ELLIS, Col. and Lt.-Col.,

Com. 1st Batt. W.I. Regt.

Colonel Lonsdale Hale, R.E., ret.,

Royal United Service Institution,

Whitehall Yard, London, S.W.

Aldershot.

DEAR SIR,

I have read Colonel Ellis's remarks with much interest; and I much regret that he should think that anything I had said in my article had reference to the efficiency of the West India Regiment which he has the honour to command. All I wished to compare were the different characteristics of his native troops and police and their aptitude for their arduous duties, necessitated by the climate and bush warfare on the West Coast of Africa.

Yours obediently,

A. S. HARDINGE, Capt.,

Roy. Scots Fus.

Colonel Lonsdale Hale,

R.U.S.I.

FOREIGN SECTION.

THIS portion of the Number, hitherto the Occasional Notes, has now become the Foreign Section, and is reserved for articles, either original or compiled, on professional subjects connected with Foreign Naval and Military matters; also for notices of Professional Books, either Foreign or English.

It is requested that articles, communications, and books for review (the latter under cover to the Librarian) may be addressed to me at the Royal United Service Institution, Whitehall Yard, London, S.W.

LONSDALE HALE,
Colonel R.E. ret.

GERMAN DIVISIONAL CAVALRY.

By Major C. BARTER, D.A.A.G.

RECENT alterations made in the German official "Felddienst-Ordnung," or Field Service Manual, are of interest, as showing the successive changes of opinion regarding the employment of cavalry with the larger units in the field.

During the last few years there had been a tendency to use cavalry in masses on the battle-field, and accordingly two years ago, in imitation of the French organization, it was decreed that in war there should be formed Army Corps Cavalry Brigades, placed directly under the Army Corps Commanders. The cavalry regiments belonging to the infantry divisions were to be withdrawn from them for this purpose, and to each division was to be detailed a small detachment of cavalry, varying in strength according to the necessities of each case.

This organization did not, however, give satisfaction at the autumn manoeuvres of the past two years, and the old order of things is now reverted to, the Army Corps Cavalry Brigades being abolished, and a cavalry regiment again forming an integral part of each Infantry Division.

It is stated in the new instructions that the chief duty of the

divisional cavalry after gaining close touch with the enemy is to consist in reconnoitring work, although a tactical use of this cavalry is not excluded, should a favourable occasion present itself. Heretofore the instructions, on the contrary, made the tactical employment of the cavalry the chief consideration, giving the reconnoitring work a secondary, though still important, place.

The tenour of the latest orders points generally to the opinion that the principal rôle of cavalry in the future will be that of securing safety for the infantry in front and on the flanks, both on the march and on the battle-field. As regards the tactical use of cavalry, it is considered that precisely by its intimate connection with the Infantry Division will it in this sense find its best chances of employment, but not so often in large as in small bodies, that is, generally by squadrons. With regard to this point, criticisms which have appeared in the German press on the new instructions point out that with the new order of things, there will be presented to small bodies of cavalry, well led by Commanders able to make the best use of natural ground features, favourable opportunities, during the course of an action, for rapid and energetic surprises. Attention is called to the fact that in the Franco-German War the German cavalry in the north and north-west of France thus attacked sixteen times, and that twelve times it was completely successful. All these attacks were made by bodies consisting of two or less squadrons.

A point which has of late been much discussed in German and Austrian military literature is also settled by the new instructions. It is decreed that in future no body of troops down to, and including, single battalions, are to be without a few cavalymen for reconnoitring purposes, and it is expressly stated that the number of cavalymen is to be measured by the necessities of each case, so that it will not be necessary to employ infantry patrols when on the march. When independent cavalry bodies are being formed, the requirements of the infantry in this respect are to be taken into account.

The projected allotment in war of a few cavalymen to other units, in this manner, follows closely upon a similar measure introduced into the Austrian regulations for field manœuvres.

GENERAL JARRAS.¹

GENERAL JARRAS having died, his widow has published his "Souvenirs," which are of great value to military students, as they are founded on his notes, made during the siege and directly after the fall of Metz. His evidence before the Conseil de Guerre on Marshal Bazaine, was not of great extent, but what there was, bore inward proof of extreme accuracy, and, as such was accepted at Trianon, where the court-martial was held under the presidency of the Duke d'Aumale.

General Jarras was promoted to the rank of Division-General in July, 1867, after an honourable career, including war service in the Crimea, Algeria, and Italy. Marshal Niel, Chief Executive Officer of the Army under the Emperor, appointed him head of the "Dépôt de la Guerre," an office corresponding in many respects with the Intelligence Division as at present organized in Great Britain. General Jarras was ordered to gather the best Officers of the Staff Corps, and whilst gradually collecting information and plans specially in reference to Germany, he was instructed to educate his subordinates for the higher duties of the Staff. The want of such information on foreign military matters had been recognized during both the Crimean and the Italian campaigns. The first necessity was the construction of good maps for military purposes; his predecessor had one of Central Europe, drawn on a scale of about 5 miles to the inch, which was a pretty design, in several colours, but inaccurate. As regards their own country, the French Officers, who required maps, were supposed to buy them from private sources. No money was allowed in the Military Budget for preparing maps of a foreign country; but by pinching from other votes, General Jarras concocted photographically a map of Western Germany on the scale of 1 inch to a mile; he did this by taking German Staff maps on a large scale, and amalgamating them on a reduced one. As the War of 1870 was conducted, the new map was of small use to its possessors. In 1867 the Luxembourg question showed that the position between France and Germany was a strained one, but no plan of campaign was formulated in case of actual hostilities: and neither the Emperor nor Marshal Niel could give Jarras information as to what maps were most likely to be needed by the Officers of an active Army presumably 300,000 strong: and he writes: "nevertheless the details of war cannot be improvised and conducted haphazard according to the events of the day or the inspiration of the moment." Marshal Niel seems to have fully recognized the advanced organization of Prussia, and that France unassisted could not expect victory if war was forced upon her.

¹ "Souvenirs du Général Jarras, Chef d'État-Major Général de l'Armée du Rhin (1870)," publiées par Madame Jarras, Paris, Plon and Co., 1892.

During the summer of 1868, Prussia and Bavaria were studied by the Staff under General Jarras. In 1869 the network of roads and railways leading from Strasbourg and Dusseldorf to Berlin was completely surveyed by various French Officers, of whom at least one was arrested whilst at work; at the same time a German Officer engaged in like occupation was arrested near Châlons. The organization and numbers of the German Army and the value of their autumn manoeuvres were fully appreciated by the French Staff. Colonel Stoffel's reports were verified, and Southern Germany was found to be preparing for war "against France." The armies of United Germany were reported to be twice as numerous as the French forces; war material of all sorts was in good order and in large quantities: the German artillery was longer ranging, and more accurate than that of France, and was at least a quarter part more numerous, its organization was so mature, that in eleven days the German Army could be assembled on the French frontier.

During the winter of 1867-68 General Jarras prepared plans for telegraphic and railway combination with the view of concentrating troops on the French frontier if need should arise. A new corps of military telegraphists was formed, trained, and affiliated with the Corps of Engineers. A committee of high Officers was appointed in 1869 to regularize railway transport in case of war. In July of that year they made a preliminary report, but postponed further action till January, 1870: in August, however, Marshal Niel died, and General Le Bœuf, his successor, practically dissolved the Committee, whose labours, if completed, would have prevented the miserable confusion of the coming summer. General Jarras gives an eloquent and appreciative eulogy of Marshal Niel, who according to him foresaw the coming war, but had as Minister to act with a Cabinet distrusting and repudiating his forecast. Knowing the unreadiness of France, he was anxious, at almost any cost, to avoid war at least without assurance of foreign aid; and this was clearly unassured either from Austria or from Southern Germany. Nevertheless, his estimate of the gallantry of the French Army was just and unabated, and he died in his belief.

General Le Bœuf, the new Minister for War, for various reasons, did not sustain his predecessor's action, in organizing the "Garde Mobile," a first step towards universal Army service. The deputies feared that the enormous increase of trained men might encourage war for dynastic purposes; the Army was jealous of the new levies, the Regular Officers openly stated that the "Garde Mobile" was a force ready organized for insurrection against the Government and against Society. Le Bœuf accepted a diminished budget, the annual contingent of men was reduced, and a large number of Army horses, especially of the artillery, were struck off the establishments.

General Jarras considers the pressure for the reduction came from the deputies, who shortly afterwards pushed the nation hurriedly into war, and hence accuses them of want of logic; but Parliaments are illogical, not only in France, and it may well be that the grave suspicions of money voted for Army purposes being not strictly nor

economically applied, caused distrust among the deputies, as it has elsewhere.

In the spring of 1870, public opinion in France considered the foreign position less strained than it had been either in 1867 or 1868, and if war were to come, it would at least be postponed till 1871; what grounds for this opinion existed, the General does not state.

The Archduke Albert, cousin of the Emperor of Austria, came to Paris and was hospitably received by the Officers of the Army, by the members of the Ministry and by the Emperor himself, to whom he is reported to have said that France and Austria had common interests against Prussia, that sudden war was possible, and that a scheme of united action should be immediately prepared.

The French Emperor welcomed the proposition, and undertook to send a high Officer to Vienna to discuss the plan laid before him by the Archduke. On the 19th of May he summoned to the Tuileries, Le Bœuf, General Frossard, and General Le Brun, one of his Aides-de-Camp. Jarras attended in his official capacity with his maps, and the Emperor disclosed his plan. France was at peace, and war was certainly not imminent, but in case of its arising one French army advancing on Stuttgart, by Strasbourg and Kehl, would join hands with an Austrian army collected in Bohemia. A second French army from the line of the Sarre was to push on to Mayence. The Archduke considered that the 1st Army, by rapidity of movement, would forestall the forces of the Southern German States, in their concentration, whilst the forces of Prussia and the Northern States would be unable to leave either the Palatinate or Hanover, which was still unsettled. A maritime expedition in the Baltic would be assisted by Denmark. The small Prussian force, available in the South, would be unable to prevent the junction of the 1st French Army with the Austrian forces, both of whom would be supported by 100,000 Italians moving from the Tyrol. The States of Southern Germany, thus overpowered, would throw off the Prussian yoke, and would once more join their lot with Austria; and Northern Germany unassisted, unsupported, and outnumbered, must surely fail.

The Archduke's scheme was admirable, on paper, and had been discussed at an earlier date by French Officers, but was it feasible? Austria required six weeks for mobilization, and Italy at least as much. The armies of Northern Germany were 900,000, whilst France could present less than 600,000, regulars and irregulars included. As the French Staff well knew, in eleven days a superior German army could block their route through Wurtemberg, and further, was the action or non-action of the Southern States assured? The diplomatists considered those States as daily less French or Austrian in their sympathies, and Prussia would strain every nerve to head the French from Wurtemberg and thus consolidate the Southern and the Northern States. For success to the scheme of the Archduke, it was essential that France, Austria, and Italy should operate simultaneously, and that the Baltic expedition should be immediately supported by Denmark. The Archduke had

stated the impossibility of this course, hampered as it would be by the moral slowness of the Austrian and Italian Chambers, and by the physical paucity of the military railroads in those countries. The impossibility was not accepted by either Napoleon, Le Bœuf, or Frossard, but that, and all parallel schemes, convinced them that for six weeks France must stand face to face and unsupported against a vastly preponderating force. General Le Brun left Paris for Vienna, but his conference with the Emperor of Austria only confirmed the former views; Austria's policy was hesitating and slow, yet the pamphlet inspired, if not written, by Napoleon III, stated that when the war of 1870 broke out, it was on the Austrian Archduke's scheme that the French Army acted: how futilely they did so, history tells! On the 6th of July, M. de Grammont made his startling announcement from the tribune in the Chamber and the Emperor's Staff was nominated. Le Bœuf was appointed Chief of the Staff, with Le Brun and Jarras as assistants; and now on the eve of war against superior forces the organization of Corps d'Armée, divisions, Staffs, and the rest of it, were discussed and altered in the military cabinet. Frossard commanded at Châlons; Niel had previously nominated him as Chief of the Corps of Engineers, and Le Bœuf wanted him to accept that post. After frequent discussions, and varying decisions, Frossard was offered his choice, and elected to command his corps. Le Bœuf told Jarras that France might count on the assistance of Austria; but his confidence gradually waned, and after Woerth he admitted that France was unaided. For the moment the Headquarters Staff were ignorant of any formulated plan, but 3 corps were ordered to mass near Metz, 1 at Strasbourg, 1 at Huningue, and 1 at Bitche, six in all, with a seventh in reserve at Châlons. The Guard were ordered to Nancy, available at need for either Strasbourg or the Sarre: but the troops had to be collected from all over France, and their concentration was difficult in all cases, and in some impossible.

War was declared on the 18th, and on the 23rd Le Bœuf preceded the Emperor to Metz: his dissatisfaction, at what he there saw, was great and increasing; the French Army was unprepared for war.

Jarras was left in Paris, and on the 24th went to St. Cloud; he there saw the Emperor in his study; whilst discussing the military situation he found to his surprise the Emperor could not read a military map! and this inheritor of the first Napoleon's name had directed an army in 1859, in 1855 had seriously contemplated assuming the command of the combined armies in the Crimea, and was an historian of Cæsar.

The following day, at dinner, the Empress, however, expressed herself confident as to the issue of the war.

On the 28th the Emperor and Jarras went to Metz, and Bazaine, just transferred from the command of the Guard to the 3rd Corps, reported himself, and as he had local knowledge of the district, the Headquarters Staff looked for elucidation of the military position from him; but he gave none, and his reserve was marked. Bazaine was a Corps Commander under the Emperor, although during the

past two years he had been mentioned as the destined Commander of a field army in front of Metz; whilst MacMahon was to command the Southern Army near Strasbourg.

Many contretemps of less or more import occurred during these few days: the Army at Metz had immediately on its arrival to indent on the stores of the garrison for supplies, and there was grave deficiency from the authorized establishments of men. Jarras proposed to the Emperor to subsidize the deficiency in the Regular Army by distributing the "Garde Mobile" among the regiments, but his proposition was not sanctioned. The political situation demanded offensive action on the part of the French, and on the 31st of July the Emperor presided at a council, of which Bazaine, Frossard, De Failly, Le Brun, Soleille, and Coffinières were members; an attack on Sarrebruck was arranged, and was carried out on the 2nd of August. Although Bazaine had been appointed to command the Army composed of the 2nd, 3rd, and 4th Corps, he took no active part during the day, and the movement was accomplished in an isolated manner by Frossard's Corps. During the evening of the 4th the news of MacMahon's check at Weissebourg was received by the Emperor, who still remained at Metz. On the 5th of August Bazaine was ordered to concentrate his three corps, but on the 6th August he left Frossard again, alone and unsupported, in his defensive position on the Spicheren heights. On the 5th MacMahon was ordered to assume chief command of the Southern Army consisting of the 1st, 5th, and 7th Corps.

The 6th Corps was not yet complete at Châlons, and the Emperor kept the Guard under his own unstable orders. On the same date as the attack on the Spicheren heights, MacMahon was beaten at Woerth, and his three corps retired in disorder towards Châlons, through the passes of the Vosges Mountains. General Jarras gives no details of either of those battles, and this omission enhances the value of his souvenirs and tends to show his careful avoidance of statements not personally in his cognizance. During the 7th, Bazaine withdrew his army towards Metz, and the Guard was ordered to his assistance, but he still hesitated to act promptly as Commander of the Army, whilst the Emperor was dallying with contradictory orders. Again, a council, the never-failing proof of mediocrity, was summoned. The Emperor recommended a retreat on Châlons for the whole of the two armies, but the Commandant of Metz strongly urged that the Northern Army should meet the Germans on the fine position 4 miles east of the town; his plan was overruled and the Army was ordered to retreat through Metz on Verdun. The contradictory instructions given to Canrobert at Châlons must have appalled that experienced soldier; he was ordered with his force first on Nancy, then back to Châlons, and finally he brought an incomplete corps to Metz. The Emperor's orders were sometimes written by his Staff, sometimes given verbally and unknown to them, hence confusion reigned supreme. Spies communicated directly with Napoleon, and he frequently issued direct orders to Corps Commanders, of which no trace was in possession of Le Brun or of Jarras, two of his principal Staff

Officers. Meantime Paris was disturbed; General Dejean, who was carrying on Le Bœuf's duties at the Ministry of War, was ousted, and Palikao, whom the English knew well in China, was put in his place; furthermore, on the 12th of August, orders were sent through the Empress to remove Le Bœuf from his post as Chief of the Staff, and to place Bazaine in absolute command. Le Bœuf accepted his dismissal, and Bazaine was appointed Commander-in-Chief of the Army of the Rhine, with Jarras as his Chief Staff Officer; from the first, Bazaine kept Jarras "à l'écart." Jarras was ordered to remain in Metz whilst Bazaine lived at Borny, a village 2 miles east of the town. An arrangement such as this was a bold offer for disaster; a Marlborough or a 1st Napoleon, hampered by inefficient subordinates, might control by his personality, but Bazaine, a commander of inferior calibre, could succeed in no great undertaking unaided by a trusted and a skilful Staff. The retreat on Verdun was ordered for the 14th, Bazaine himself giving orders to the Guard and to three other corps, whilst Jarras arranged for the movement of the artillery, the engineers, the transport, and the 6th Corps.

The march was ill-planned, and Jarras knew it, the whole of the force under Bazaine's orders, with its artillery and stores, was ordered to march by a single road as far as Gravelotte before bifurcating; there were three, if not four, efficient roads which were absolutely neglected, and Bazaine was responsible; but he, for the time at least, bore an incumbrance as great as the old man of the sea. Napoleon, though nominally surrendering executive command, remained with the Army, and the General had not only to ensure the personal safety of his Emperor, but had also to be in constant communication with him. Affairs daily grew worse in Paris; both the Empress Regent and Persigny stated, plainly and truthfully, the Sovereign could not return to his capital except as a victorious monarch. Hesitation was no longer possible; German scouts had visited Briey, some 10 miles north-west of Metz. The 3rd Corps was still at Borny, with the Guard in support, and one division of the 4th Corps at Fort St. Julien; the rest of the Army had crossed the Moselle in retreat. The 1st German Army, under Steinmetz, attacked, and the remaining divisions of the 4th French Corps recrossed the river to the support of their comrades. At nightfall, Bazaine ordered the original retreat to be continued, but the Guard alone assumed their allotted bivouacs near Longéville, west of Metz. The 3rd and 4th Corps, from fatigue or other reasons, remained east of the river. Jarras appreciated the strategy of the Germans in the battle of the 14th; it is true they failed in driving back the French troops opposed to them, and they had sustained such heavy losses that their General was shortly sent home, but the French concentration on the Gravelotte plateau was impeded, and time was afforded the Germans to threaten the retreat on Verdun.

On the morning of the 15th the 2nd and 6th Corps were moved on Mars-la-Tour and Rézonville, and the Guard on Gravelotte; orders were issued to the 3rd and 4th to remain at Vernéville and Doncourt, but to those places they could not attain, the roads allotted to them

were blocked by wagons of all sorts, and the Briey road was reported as being threatened from the north.

At 3 in the afternoon Bazaine started for Gravelotte, where he found the Emperor; during his ride he saw the Guard Corps marching in single file either side of a road occupied by hired transport; this latter he ordered back to Metz, against the wishes of his Commissariat Officers, but necessity, according to Jarras, forced this ship-burning process on the Commander-in-Chief.

The advanced guards of the 2nd and 4th Corps found German troops in Mars-la-Tour, so their main bodies camped at Rézonville. The Guard reached Gravelotte; some of the 3rd Corps reached Vernéville, but the main body was still "en route," whilst the 4th Corps remained unable to cross from the right bank of the Moselle.

At 3 in the morning the Emperor escorted by two brigades of cavalry left for Châlons, there to await the arrival of his armies. The morning of the 16th of August found the 4th Corps at Sansonnet, close to Metz, and two-thirds of the 3rd Corps were still marching towards Vernéville. Bazaine countermanded his previous orders, on account of the scattered state of the forces, but warned the troops that the retreat would be continued in the afternoon. Frossard, although his memory failed him at the court-martial, wrote in the early morning that 4,000 Germans, without artillery, were in front of Gorze, and Canrobert reported that his patrols had found no enemy, although the ravines had been searched. Forton's cavalry division at Vionville had also failed in getting touch with the invaders. At 10 A.M. Forton's camp was shelled; the 2nd Corps hastened to their arms, and Bazaine, with just appreciation of his position, ordered the Guard and the reserve artillery to Rézonville.

The contradictory evidence given before the Conseil de Guerre make an accurate rendering of the French movements an impossibility; but the German Staff account, and other sources, leave little to be known. Bazaine showed great personal courage, and remained in the firing line of Frossard's corps; his light field batteries being overpowered by the heavier German guns, he brought into action guns from the reserve. About 2 in the afternoon Bazaine launched two cavalry attacks against the advancing Prussian infantry. The attack of the Lancers failed, but the Cuirassiers of the Guard made a gallant onslaught against the scattered companies of the 10th Infantry Brigade; the fire was murderous, and the Cuirassiers lost in a few minutes 22 Officers, 208 men, and 243 horses. A German counter-attack, by the Brunswick Hussars, completed the rout of the French cavalry, who carried back with themselves the advanced companies of their own infantry, and scattered Bazaine from his Staff. Endeavour was made to follow up this success by an attack of the 6th German Cavalry Division, but the ground was unsuitable, the infantry fire intense, and the attack failed. Frossard's 2nd Corps, roughly handled at Spicheren, had borne the brunt of the German attack for many hours on the 16th, and Bazaine sent the Guard to relieve them between 3 and 4 o'clock, during a cessation of fire, but it was a lull

only, and firing reopened on the French left about 5 and continued till dark.

About 3 P.M. the portion of the 3rd Corps under Le Bœuf had prolonged the French line to the right, and the 4th Corps, which Ladmirault moved from Sansonnet when the firing began, drove the Germans from Mars-la-Tour before dark. The French bivouacked on the battlefield. The roads near Rézonville and Gravelotte were thick with squandered soldiers, and Bazaine, with difficulty, forced his way, at 10 at night, to his quarters at Gravelotte.

The position was grave, but not impossible: the French had held their ground, and Bazaine was ignorant of the overpowering numbers of Germans within practicable distance. The Commanders of the Guard, 2nd and 6th Corps, were in communication with him. It was agreed that a direct flank march on Verdun was dangerous, but a more northern route was open. Bazaine, at 11 o'clock, wrote his now celebrated order, withdrawing his troops to the hills running north and south, but close to Metz, in order, as he said, to replenish their stores and ammunition.

The 17th was spent in taking up their allotted positions, facing west, the 2nd Corps on the left near Rozerieulles, the 3rd near Châtel-St. Germain, the 4th at Montigny la Grange, the 6th was ordered to Vernéville, but Canrobert objecting, he was placed at St. Privat-la-Montagne, the Guard camped between Plappeville and Lessy. The cavalry division of the 6th Corps had been left at Châlons, and a brigade of the 3rd Corps was sent to Canrobert in their place. The cavalry division of the 4th Corps guarded the Thionville railway, and Forton's division and the cavalry of the 2nd Corps, camped near Rozerieulles, were ordered to reconnoitre the left bank of the river southward from Moulins. As Jarras said, the left was strong, but the right was weak, and the entrenching tools of the right corps had been left at Châlons. From the spire of Metz Cathedral constant streams of German troops were seen, during the 17th, crossing the Moselle at Ars and Noveant, all heading for the plateau of Gravelotte.

At 9 o'clock on the 18th the French Corps Commanders reported the enemy as being in motion in front of the position. At noon the 2nd Corps was attacked, soon afterward the whole four corps were engaged. The left of the line, and the front, held their ground, but the poorly-entrenched right corps was turned, and retreated, thus forcing a conforming movement on the 4th and 3rd Corps.

Bazaine only left his quarters at 2 o'clock, and posted himself, first at St. Quentin, then at Plappeville. He received demands from Ladmirault for infantry support, from Canrobert for both infantry and artillery, as his reserve artillery was still at Châlons with his engineers and cavalry. Bourbaki and the Guard were impatient in their reserve positions, but Bazaine sanctioned no change till evening, when one light brigade from the Guard was moved towards the 4th Corps. The reserve artillery remained unemployed at Ban-St. Martin, Forton's cavalry and the Guard cavalry were in bivouac the whole day.

At 7 o'clock Bazaine returned to his quarters, and expressed him-

self satisfied with the events of the day, although his right was turned and his reserve of the three arms had been unemployed.

New positions were allotted during the night by the Commander-in-Chief, and they were speedily assumed. The 6th Corps formed line facing north from close to the Isle Chambière to Coupillon, the 4th from Coupillon to Lorry, and thence to Lessy, the 3rd was on an arc round St. Quentin, and the 2nd occupied Chazelles and Sey, and rested on the river at Longéville. The Guard was in rear of the 6th and 4th Corps, and headquarters were at Ban-St. Martin.

Jarras was in Plappeville during the battle of the 18th, and heard but intermittently the sound of guns; Bazaine gave him little or no information, even if he had any to give, and up till 9 in the evening the Chief of the Staff thought Canrobert had held St. Privat; at that hour a Commissariat Officer reported that his convoy, whilst journeying to St. Privat by the high road through Woippy, had been stopped and disordered by wagons and horsemen flying from the field of battle. At the same time two Staff Officers, one from Canrobert and one from Ladmirault, came to Jarras, who conducted them to Bazaine. They reported that the 6th Corps had entirely abandoned its position, and, in consequence, the right of the 4th Corps had retreated. They demanded instructions as to new positions. It was clear that the right of the French had met with so grave a check that the results might prove serious. Bazaine, in an unmoved manner, pointed on the map to their new positions, and said, under any circumstances, this movement would have been made the following morning; the only alteration caused by the events of the day was that the movement would take place somewhat sooner. These positions had been surveyed by Colonel Lewal, of the Headquarter Staff, during the day. Bazaine's expressed confidence in the strength of the Amanvilliers position was strongly at variance with his action, in having a position reconnoitred close home to the forts of Metz. But Jarras frequently found Bazaine inconsequent and changeable, and he gives no credit to a Machiavellian idea fathered on Bazaine, to cut himself and his army completely adrift from the Emperor. He was not a born commander, and the circumstances in which he was placed were altogether beyond the scope of his intellect or his education; in the absence of military information he elected to let matters drift; the general course of feeble minds. It would have taken a man of different calibre from Bazaine to raise the *moral* of the Army of the Rhine.

Such men are rare, but Jarras considers Pélissier to have been of this class: he formed his plans, and told his subordinates to do their best to carry them out; as an instance of his determination, on the 7th June, 1855, he received a dispatch from the Emperor, forbidding him to attack the Mamelon fort; he was mounting his horse to direct the attack as he received it; he showed the message to his Staff, and said, "Now for the attack of the Mamelon;" he received tardy congratulations on his success from the Emperor, but after the fall of Sebastopol Napoleon thanked him for the firmness he had shown. On the 18th June the French lost 8,000 men in the attack on the

Malakoff. Pélissier said, quietly, to Lord Raglan, "Eh bien, milord, c'est à recommencer." Letters were constantly being written from the Crimea complaining of Pélissier's autocracy, and at one time the Emperor had actually signed his recall; but luckily this was revoked, and it was owing to Pélissier's firmness that Sebastopol was stormed on the 8th of September.

The Army was in its new positions on the 19th, many things lost or destroyed during the battles of the 14th, 16th, and 18th were replaced from the garrison stores, but these soon become impoverished, and it was sought to replenish them by articles made in the town.

The Chief Commissariat Officer told Jarras he had been preparing stores on the route to Verdun, most of which were now lost, as a matter of course; Jarras, although Chief of the Staff, had not been previously informed of this fact.

Early on the 19th flags of truce were employed, the release of wounded prisoners and the exchange of unwounded ones was discussed, and the French found it stated in German newspapers that fell into their hands, that the German Army, 250,000 strong, under the King of Prussia's personal command, had lost 18,000 killed and wounded in the last day's fight. The French reckoned their own loss much lower, and Jarras considered their moral satisfactory.

The first consideration was food, and the Intendant found a month's store was about the total for the whole Army, but there was only fifteen days' fodder for the horses. Bazaine expressed himself anxious to keep the men fit for the field, and refused to diminish the rations.

Artillery stores and ammunition were being prepared in the town, which was encumbered with 18,000 wounded men, the proceeds of the actions of the 14th, 16th, and 18th. The baggage trains were reorganized and diminished. The defensive works of the forts themselves were made good. The light field batteries were replaced by heavier guns, whose stores of percussion fuses were largely increased. The 3rd Corps worked at the forts on the right bank from St. Julien to Montigny, leaving one division in front of St. Quentin. The 2nd and 4th Corps completed the Forts St. Quentin and Plappeville, and a complete division of the 2nd Corps garrisoned the forts.

The Commander-in-Chief ordered the bridge over the river below Metz to be restored, as he expressed his intention of forcing his way out by the right bank to Thionville, and there recrossing to get back to the interior of France.

Special Officers were selected to organize partizan corps for the purpose of giving information of the enemy's position and troops. Bazaine subsidized their efforts by sending Officers who spoke German with flags of truce ostensibly in regard to the exchange of prisoners, but really to note the numbers and the uniforms of the Germans, so as to satisfy themselves as to the location of the different corps. This surreptitious mode of gaining information ceased from 1st September, after which date no "parlementaire" was allowed by the enemy except on the road from Moulins to Ars. From this date no information was received except by spies; and by them even it

became daily more difficult and uncertain. But Jarras received a letter on the 30th August from the Governor of Verdun. Great care was demanded in regard to those men who were suspected of serving both sides; but on the 21st October two men got away, who took letters which safely reached the Government of National Defence. Generally they failed in getting through the German lines, though some got into them and returned; a few balloons were sent up with letters, some of which fell into German hands, but the majority crossed the besiegers and their communications, and passed to their destinations.

The Marshal declared openly and constantly his intention of forcing his way from Metz. On the 19th August arrangements were made by which the troops had certainly three days' provisions available, and on the morning of the 25th they were ordered to be ready to start at any moment; on the evening of the 25th positive and detailed orders were issued. The 2nd Corps, after crossing the town, was to take position, its right on the Sarrebruck road, its left near Vantoux. The 4th Corps, crossing by bridges thrown below the town, was to move in front of Grimont. The 6th Corps was ordered to follow and make good the ground north of Grimont to the Moselle. The 3rd Corps, already over the river, was to move between the 2nd and 4th Corps. The Guard to follow the 6th Corps, and to be in reserve to the 4th.

The 2nd and 3rd Corps on the 26th moved according to orders; the 4th, late in starting, blocked the 6th and the Guard; nevertheless all corps were in position by noon, except the Guard which was only then crossing. Bazaine started at 11.30, and was at Grimont at 1, and sent for the Corps Commanders, saying to Jarras, "Que vont-ils me dire?" Jarras said, whatever the opinions of the Corps Commanders might be, it was clearly for the Commander-in-Chief to decide; at 1.30, in torrents of rain, the Corps Commanders, with the exception of Bourbaki, arrived.

Bazaine declared his intentions of gaining Thionville by the right bank, and then recrossing to gain the north of France, near Montmédy. The Council of War, as usual, decided not to fight, for various reasons; according to Jarras, the Corps Commanders were practically unanimous; Coffinière's opinion of the weakness of some of the forts, especially of Queuleu if the Army was removed, had great weight. An order was framed for the troops, deferring the sortie on account of the weather. The 2nd Corps moved south of the town along the railway embankment, from the Seille to the Moselle. The third from the Seille to St. Julien. The 6th in its old position between Coupilon and the Moselle, the 4th on a long arc round Plappeville and St. Quentin and back to the river, and the Guard and reserve artillery near Plappeville, St. Quentin, and Ban-St. Martin. The Marshal returned to his quarters, and the weather immediately cleared; his baggage carriages had not moved.

Jarras was present at the Grimont meeting, and it is clear on the point that Bazaine, though cognizant on the 23rd of MacMahon's move eastwards, told nothing of it to the Corps Commanders, or

probably their opinion as to the attempted sortie would have been different; it was only on the 31st that Jarras and the Corps Commanders heard anything of the movement. There was discussion on this point during the Bazaine court-martial, but the evidence was overpowering that neither Bazaine nor Colonel Lewal had conveyed the information, in their possession on the 23rd, to any of the responsible members of the Council of War on the 26th.

Jarras goes into long detail about the stores of ammunition, but with a hesitating leader, the amplest stores would have been useless, and it would be but a crop of Dead Sea fruit to enter into this detail at this time.

The question of recrossing at the one bridge of Thionville was strategically serious. The Germans, with superior forces, were on a shorter line to the western side of that town, and the strategical position was terribly against the French if the Thionville plan had been followed.

In all this discussion MacMahon's army was not considered: those who had seen them in retreat after Woerth were convinced that it would be long before they were reorganized morally and physically to stand against their previous victors, and this eventually proved to be MacMahon's opinion, for he hesitated before initiating his march on Sedan, and then moved under the strongest political pressure. Jarras considered more chance of success would have attended the attempt to break out southwards, towards Château Salin and the Vosges, and this he said to Bazaine on the 26th. For a moment, he hoped his ideas were accepted, as the Marshal made inquiries about Courcelles-sur-Nied and other places on the road, but he moved no further. Whether Jarras' proposition was possible, at so late a date as the 21st, is open to doubt, but generally the strategy he advocated has been approved by two such men as Von Moltke and Hamley, and by many other military writers. As soon as the troops were in their new positions every endeavour was made to prepare them for an assault on the enemy's lines, but each day the position grew worse: the French were consuming their provisions, and the German field works were being strengthened; at St. Barbe, for instance, a strong and growing battery was visible on a dangerously commanding site. Partial attacks, for foraging purposes, were constantly being made by the French, with little or no result. During the morning of the 30th the troops had three days' provisions issued, and in the afternoon news circulated that MacMahon was marching towards Metz; roads were prepared to the three bridges of the Chambièrre, and the same orders as on the 26th were issued, except that the 2nd Corps were already east of the river. At daybreak on the 31st the 4th and 6th Corps moved off, the routes across the Chambièrre being marked with flags, different in colour for the different corps; yet clashing occurred, and at noon the Guard was still on the left bank waiting for the bridges to be cleared. The reserve artillery did not reach their position till 6 in the evening. At least one General and his Staff forced the sentry on one of the bridges which was detailed for another corps. At 1 the Corps Commanders again met at Grimont.

Bazaine explained that MacMahon, coming from Châlons, was on the Meuse in the Ardennes. The Metz Army was to move by the right bank on Thionville, as before ordered. The 3rd Corps supported on its right by the 2nd was to carry Noisseville on the Sarrelouis road. The 4th, followed by the 6th Corps, was to attack St. Barbe, and then the whole Army, changing direction slightly to the left, was to move on Thionville. Le Bœuf was to start the 3rd Corps on a signal from Bazaine, who went in advance of the skirmishers of the 4th Corps to a position 700 or 800 yards from Villers-l'Orme, and there he ordered an épaulement for a battery to be immediately constructed, thence to Grimont, where another battery was prepared for three large guns from St. Julien. At 4 Bazaine fired his signal gun. The movement was apparently successful. The 4th and 6th Corps conformed to the attack of the 3rd, and at nightfall the French were in possession of Noisseville, Servigny, and Villers-l'Orme. Nevertheless the French movement was completely visible to the enemy, and reinforcements came towards Noisseville and St. Barbe. Some crossing the Moselle below Metz, and much larger bodies from above. A German night attack, in great force, drove the French out of Servigny. A thick fog early on the 1st of September prevented action, but at 7 the French renewed their attack, which was everywhere defeated, and the retreat was ordered to their original bivouacs. During the battle of the 31st, and till 10 at night, Bazaine was with his troops, and then, considering no further action would occur till daylight, he retired to St. Julien; he sent out his orders on the morning of the 1st of September to continue the advance, but the retreat had begun on one part of the line, so the whole were ordered to conform.

During the two days, the 3rd and 4th Corps were principally engaged, only one division of the 2nd entered into the action, a few skirmishers of the 6th Corps fired, but the Guard did not fire a shot. The cavalry did not move, although the artillery of the 3rd and 4th Corps, and some batteries of the Reserve fired heavily. It has been said that Bazaine had no real intention of breaking out; Jarras, the Chief of his Staff, states that neither before nor after the 1st of September had he any categorical information as to Bazaine's intentions, but his procrastination in personally remaining in Metz till 11.30 on the 31st, and then assembling the Corps Commanders at Grimont, so that no action commenced till 4, were all condemnatory courses. He clearly ought to have given his detailed instructions over night. Had the arrangements been detailed and the assault begun earlier, Jarras considers that the Metz Army might have reached Thionville that night, more especially as later information showed that Prince Frederick Charles retained the bulk of his forces west of Metz, ready to support the action against MacMahon. But had Bazaine reached Thionville his route was assured no further; he had still to gain Montmédy, Mezières, and Sedan, on his route to the interior of France. Thionville could supply but small quantities of food and ammunition, and no position could last at that place. Want of food would have forced the Army to push forward, and the Crown Prince's and Prince Frederick Charles' armies would have been on their

route. Howbeit Bazaine was committed to the Emperor, and to MacMahon, to work northwards on towards Châlons, and therefore by his engagements the southern march to Luneville, Château Salins, and the Vosges was debarred to him. The Government at Paris had ordered MacMahon from Châlons towards the Meuse to second the plan proposed by Marshal Bazaine: if this is true Bazaine was responsible for an impossible design.

After the abortive attempt Bazaine was loud and frequent in his complaints of the action of the Corps Commanders, but his own faulty and equivocal dispositions ought to have borne the blame of the miscarriage. In fact, the intercourse between the Commander-in-Chief and his subordinates, whether Corps Commanders or his own Staff, was absolutely without confidence on one side or the other. The command being weak, the less high Officers, such as the Governor of the town, the Corps Commanders, and the Headquarter Staff, found their duties helplessly overlapping. This ill discipline must have reacted with disastrous effect on his subordinates. Jarras was anxious to resign his appointment, but his sense of duty kept him in his nominal position till the final catastrophe. It is curious to read that Bazaine gave decorations and promotions to some Officers of the Staff after the failure of the sortie.

Frossard was asked to study a possible attack on Mercy-le-Haut, and on the 3rd Canrobert was requested to drive the enemy's Grand Guards from Ladonchamps; neither instruction was carried out, and Bazaine lamented continuously the want of support he received. His personal action certainly did not bid for success.

On the 3rd of September a Staff Officer from Metz, who had gone to the German outposts about an exchange of wounded prisoners, brought back word of the surrender at Sedan. The news was emphasized by the cheering of the German soldiers, but it was not divulged to the Army generally till, two days later, a couple of French soldiers reported themselves as having escaped from Sedan after capture. On the same day (the 5th) the look-outs saw long columns of dust passing from west to east, south of Metz. Rumour had it that the German Army was retiring in defeat; only on the 7th was it accurately known that the long column raising the dust was convoys of French prisoners.

Directly after the fight of the 16th and 18th, Bazaine, in order to save food, sent 1,500 German prisoners to their friends, requesting the release of an equal number of Frenchmen, but all the Frenchmen had been passed on to the interior of Germany. On the 7th, 750 Frenchmen were passed in from the German outposts, none of whom had fought round Metz, but all had been captured at Sedan, and selected from different infantry regiments in order to convince Bazaine of the full extent of the French defeat. The prisoners whilst in German hands were not allowed to cross the Moselle, but were sent up from Ars, and they brought full particulars of the battle of Beaumont and the surrender at Sedan. Great consternation spread through Metz, which gave place to anger when, shortly afterwards, another batch from Strasbourg was sent in. These brought news of the bands

of franc-tireurs in the Vosges, and of the raising of a Southern Army. On the 18th a Lieutenant-Colonel of cavalry had been sent to Metz in exchange, after surrender at Sedan and return from Mayence. Of course his detailed account of the 1st and 2nd of September was of great importance. Bazaine had heard on the 10th of the fall of the Empire and the establishment of the Republic, which was proclaimed throughout France on the 4th; he assembled his Commanders on the 12th, and gave instructions that no serious operations were to be undertaken till after communication with the Central Government.

A civil servant named Debains tried to pass out under a false name, but he was detained at Ars for a whole day, and then returned to Metz. He read several journals during his detention, and put the pith of them into Bazaine's hands. His memorandum was as follows: "600,000 German soldiers were on French soil; the only existing French Army is in Metz; no satisfactory enthusiasm for national purposes in the invaded provinces; a complete union of all Germany for the national cause; discussion postponed till after the war as to the form of German Government; no chance of armed intervention by Austria; Austria and Russia moving diplomatically for peace, but no actual bases mentioned to Prussia; great efforts against Paris by the enemy; Metz to remain in the background for the present; bombardment probable in six or eight days on the arrival of heavy artillery."

After long discussion the gist of this note was confidentially transmitted by Bazaine to his Generals. Discussion as to the new form of Government was partial among the Officers. The staunch Imperialists were silent, and the Liberals only declared their approval. The Marshal avowed no political opinion, but expressed his intention of awaiting communications from the *de facto* Government. He was anxious to keep the Imperial Guard in his interests, and so continued their extra pay. The Army in general avowed sentiments of patriotism and of discipline. One incident was remarkable in Canrobert's corps; some sub-officers, promoted Officers, were sworn in, and, instead of saying "in the name of the Emperor," some said "in the name of the French people," some "in the name of the French Republic," some "in the name of the Government of National Defence." At a conference of the senior Officers it was determined to still use the phrase "in the name of the Emperor." The civilians in the town were more exercised by Republican views than the soldiers, and the journals were turbulent, and as Bazaine did not interfere and the Government of the town would not act, the growing dissatisfaction of the Press eventually affected the discipline of the Army. During the whole of September partial sorties were discussed, but none were carried out, and in the middle of the month difficulties arose with the townspeople about the price of provisions.

By the 22nd of September the cavalry and artillery horses were becoming inefficient, but the men were well nourished; horse flesh was regularly and largely issued. On the 25th General Desvaux was appointed to the command of the Guard in place of Bourbaki, *en mission*. Jarras' view of this curious event was as follows:—Since

the failure on the 31st the enemy's works were being constantly increased, and no news of a private or official nature reached Bazaine; the leaguer was complete. It was unknown how far the new Government had been accepted in the Departments. Bazaine communicated from time to time with Prince Frederick Charles, but received only mutilated newspapers in response, and his Aide-de-Camp, General Boyer, was refused an interview. Jarras heard some days after the occurrence that an emissary had been passed through the lines on the 23rd, and taken by General Cissey direct to Bazaine. The messenger went back on the 24th, and returned to Bazaine on the same day; he told the convoying Officers that France was in anarchy and that an Imperial Government alone could save it. After an interview with Bazaine, Bourbaki, and Canrobert, Regnier, the mysterious messenger, returned on the 25th to the German outposts with Bourbaki, then dressed in plain clothes. Bazaine gave varying accounts of Bourbaki's mission, but Jarras justly considered that Regnier, the messenger, would not have been allowed to pass the German lines except in the interest of the German Army.

Bourbaki left Metz in company, not only with Regnier, but also with half-a-dozen surgeons belonging to the National Association of Geneva, whose departure had, up to that time, been refused by Bazaine. Prince Frederick Charles refused Bourbaki permission to re-enter Metz after the failure of his mission, but by express order of the Prussian King, he was released, and took service in the North under the Government of National Defence. During the days following Bourbaki's departure, preparations were ostensibly made for a movement on Thionville by the left bank; baggage trains with much diminished horse-power were allotted to each corps, and on the 3rd October, two days' biscuit and the last ration of bacon remaining in store was issued to the troops; meanwhile, on the 27th September, a dashing attack had been made on Peltre by the 3rd Corps, and the whole German garrison was captured; the 6th Corps attacked and captured the château of Ladonchamps, but retreated in the evening, and it was only permanently in French hands after 2nd October. The 3rd Corps raided the village of Colombey. From the 2nd to the 26th September, Staff Officers were constantly on the look-out from the top of St. Quentin, but on the latter day they were discontinued from that duty by Bazaine's direct orders, and on the 29th September a German Officer informed the Captain of an outpost at Moulins les Metz that Toul had capitulated on the 25th and Strasbourg on the 28th.

From the 30th September, fifty horses a day were issued from the Army for food to the civil population. On the 4th October the Commander-in-Chief again summoned the Corps Commanders and explained the situation; food and *moral* were both diminishing; an attempt to break out was necessary, he proposed a scheme by which Thionville was again made the objective, the 6th Corps and Guard were to keep on the left bank of the river, with the 4th Corps on the heights parallel to their line of march; the 3rd Corps was to advance on the right bank; lastly, the 2nd Corps were to act as rear guard.

Bazaine gave no orders but asked for opinions on the proposed scheme: Le Bœuf explained his position was arduous, being separated by the river from the main Army, his flank and rear attacked, his position would be disastrous, but he expressed his readiness to obey orders. Bazaine said all schemes were dangerous under the circumstances; if his was not approved, the Council was requested to suggest another. No discussion followed and the plan fell through. On the 7th October, Canrobert raided Les Grandes et Petites Tapes; the voltigeurs of the Guard were attached to his corps; his advance down the valley of the Moselle was to be supported on the left by the 4th Corps, who were to occupy Saulny and Vigneulles, and on the right bank Le Bœuf was to advance to Chieulles and to attack Malroy from that place. The troops, unencumbered by packs, were to gather forage reported to be stored in the farms at the Tapes, but though the Guard behaved well, nothing was gained to compensate for the loss of life. Bazaine watched the attack and concluded a sortie in force was impossible on that line, and remarked that Canrobert had been ill supported on either flank. Bazaine constantly repeated he would make a desperate sortie rather than surrender, but his plans for so doing inspired no confidence. Nevertheless, on the 9th October the rations for the soldiers were still $\frac{3}{4}$ lb. bread and $1\frac{1}{2}$ lbs. of meat; but the end was visible; the commissariat reported only two days more grain in the stores, and on the 10th another council was held at Headquarters. The three questions were, the food, the military question, and the political one. By foraging in the town, food might be counted on till the 16th. Coffinières, while admitting the mischief done by the journals, declined to control them, and explained that no great amount of food was stored in the town. The Corps Commanders represented that without the labours of the field army the forts would still have been unfinished, and the town would have been bombarded, and these matters must be compared with the value of the six weeks' food, already received from the civilians for the army.

The military question was clear; what had been impossible on the 31st August was hopeless now; the enemy's earthworks and armaments were stronger, the French artillery and cavalry were horseless.

As to a further political discussion, some sanguine spirits expected the Germans would allow freedom of movement for the Army, with a view of awing the anarchism in France, the more especially as Europe wanted peace, but Jarras expressed doubts as to the Army, even if liberated, acting against a republican and popular Government.

Bazaine proposed to communicate direct with the King, to give freedom to the Army, its arms and its baggage, with the object of restoring peace under an Imperial Government, and this was approved by the Council, with the reservation that failing acceptance on these lines, a sortie was to be made with all forces.

General Boyer was instructed to endeavour to gain audience of the King at Versailles, and received a pass from Prince Frederick Charles on the 12th; Bazaine can hardly have hoped for success in this mission, as, after a *séance* on the 12th with the senior Officers, he sent, early on the following morning, for Jarras, and discussed a new attempt to

force a way out southwards, in three columns, along the road to Strasbourg, to Noumény, and to Coin-sur-Seille. The earthworks of the Germans on these roads were shown on large-scale maps, drawn from observations and from the reports of spies; though not absolutely accurate, they were faithful to a large extent; but Boyer's mission at Versailles was hanging fire, and food supplies were rapidly diminishing at Metz. Boyer returned on the 17th, and, after a private report to Bazaine, the Commanders were called together on the 18th, and Boyer explained he had had two interviews with Bismarck, who told him of the anarchy in France; the Government installed in Paris and at Tours had no power in the departments; desperate men ruled in Lyons, Marseilles, and other places, some of which begged for Government troops to preserve order. Boyer had seen the French National Guard keeping order in Versailles; Rouen had been occupied at the request of the inhabitants: no organized troops existed in France; regiments returned from Italy and Algeria, and, made up to 40,000 strong by Gardes Mobiles, had been scattered near Artenay and before Orléans; Paris still held out, it was true, but it had not been assaulted; and St. Cloud, though destroyed, was destroyed by the guns of Fort Valerien. Bismarck approved Bazaine's idea, but wanted guarantees which he could not give, and which could only be given by the Empress, as regent. But a success by arms was now impossible, and the Commanders were anxious to endeavour, by any means, to extricate their army from the horrors of famine. The political question, however, was obscure. Could the Army be depended upon to obey their chiefs? The majority of those chiefs affirmed their belief, and, after a heated meeting, it was decided, on the 19th, to send Boyer to the Empress. Changarnier spoke at the meeting, though, at 75 years of age, he was not an Officer on active service: and it was, perhaps, his oratory that influenced the meeting. Desvaux (commanding the Imperial Guard) said the Army was bound by its oath to the Empire, and could not act against Imperial interests till relieved from its oath. Ladmirault spoke of his own devotion to that cause, but somewhat distrusted his men. Canrobert and Soleille agreed—without making any speeches. Le Bœuf and Coffinières doubted the Empress acting in the matter. Frossard wanted the Empress to come over to the Army. It was thought that Boyer had given a Prussian view of the state of France, and that he had received his estimate of the Tours Government through Bismarck—voluntarily or involuntarily. Boyer started on his mission the same day (19th), and, on the 23rd, Bazaine received a letter from Prince Frederick Charles, saying Boyer's mission had failed.

Bazaine assembled the Commanders yet again (on the 24th), and read a telegram from Bismarck, relating the insuccess of Boyer's journey to the Empress: the Army had no future through diplomacy, their only chance was through force. "Que faut-il faire?" was the Commander-in-Chief's final sentence. An angry discussion ensued, many present abusing Coffinières for not having provided more food from the town.

Since negotiations had been opened, desertion had increased: the *moral* of the Army was being sapped; the Officers expressed patriotic sentiments, but they differed among themselves in political opinions: some being Republicans, and others staunch Impérialists, among whom, as might be expected, was the Commander of the Guard. Ladmirault was ready to obey orders, but admitted that the troops were no longer fit, morally or physically, for heroic efforts. Frossard, Canrobert, and Soleille less openly avowed the same sentiments. Le Bœuf was anxious to try a *sortie*, but he admitted it would be "*une héroïque folie*."

Coffinières wished to treat the garrison and its forts on a different footing from the field army, of which the infantry alone was a valid force; both cavalry and artillery were practically horseless. The enemy's earthworks were now so complete, that all routes were blocked, and the general opinion of the meeting was in favour of treating with the Germans. Bazaine doubted the Army receiving any better terms than had been granted at Sedan, and considered that the Germans would only consider the garrison and the army under one heading. The venerable General Changarnier undertook the thankless task of entering into negotiations with Prince Frederick Charles, on the footing of the army and the forts being separately treated: the army to refrain from action against the Germans, and serve in France or Algeria in the interests of order alone, the forts and their garrisons to remain intact. At the conclusion of the *séance*, Bazaine wrote to Prince Frederick Charles, and it was agreed that Changarnier should go to the Château de Corny at 11 A.M. on the 25th. He returned in the afternoon; the terms were absolutely refused; but a German General would be at Frescaty at 5 P.M. with an ultimatum. General Cissey met him, and brought back the only terms the Germans would grant, which were a complete surrender of the forts, arms, and army, all members of which would be prisoners of war.

On the morning of the 26th the Generals in assembly were informed of these terms by Bazaine: Changarnier and Cissey reported that they had been courteously received, but Prince Frederick Charles and his Chief of the Staff were resolute as to the terms. Food was an absolute necessity, and there was nothing but horseflesh left, and but little of that, in the Army stores, though the garrisons of the forts were slightly better off. A discussion was fiercely carried on as to disabling the arms and wetting the powder, but the majority of the Council decided that this would be a dishonourable course. Jarras, though not being allowed to speak, dissented, but he was appointed, nevertheless, after grave remonstrance on his part, to sign the Convention as Chief of the Staff. In answer to Bazaine's letter Prince Frederick Charles appointed Frescaty at 6 P.M. as the place and time for the interchange of plenary powers. Jarras went, accompanied by two Staff Officers, both fluent German speakers; at 8 they arrived at Frescaty, and were received by Stiehle, Chief of Staff to the German Commander, who refused in any way to separate the lot of the Army of the Rhine from that of the forts, which they,

in fact, had made efficient, and to which they had voluntarily attached themselves. He also refused to allow any troops to go to Algeria, as their passage across France might have raised the country. A long discussion took place about the Officers retaining their swords, which was refused by direct orders of the King, owing to a General having broken his parole from Sedan; however, Stiehle, during the interchange of written documents, undertook to telegraph to Versailles, and this point was left blank for the present. Frossard had instructed Jarras to keep from surrender if possible the machinery, books, and records of the Artillery Institute, but his application was unavailing. Jarras returned at 3 A.M. the 27th, but Bazaine would not see him till 9.30, when he received a full account of the past night's proceedings.

At 2 P.M. Jarras was informed that the "honours of war" were sanctioned for the Army, but as this entailed a marching past of Officers and men, Bazaine, in agreement with Canrobert and Le Boeuf, refused acceptance; nevertheless, the Officers were permitted to wear their swords, in recognition of the courage and skill shown by the French Army. Bazaine gave further instructions to Jarras about the standards, some of which had already been destroyed, and he was commissioned to go forthwith to the German lines to conclude the Convention.

At 5.30 he met Stiehle, who was astonished at Bazaine's proposition that the colours should be destroyed, and that the Commander-in-Chief should not parade at the defile of the troops. Stiehle explained that food and straw for bedding had been for three days past at Ars. Jarras signed at 10.30 P.M. on the 27th, and returned at once to Ban-St. Martin. On the 28th the Generals were informed in full detail, and the surrender was ordered for the next day (29th). During Jarras's absence Bazaine ordered all the colours to be brought to the arsenal for destruction, and erased the order from the order book on Jarras's return. During the afternoon of the 28th a letter was received from Stiehle, saying Prince Frederick Charles recognized no right on the part of Bazaine to destroy the eagles when once the Convention was signed, and requesting immediate information of how many colours remained undestroyed, and where they were placed. Bazaine told Jarras to answer that it was the custom in France, on change of Government, to destroy the old colours, but that forty-one still remained in the arsenal at Metz. Bazaine verbally altered his rough draft of the letter, and Jarras sent a fair transcript as altered to Stiehle. Bazaine, at the court-martial, denied having sent the letter, till confronted with the rough draft and with his own corrections, and then said he had forgotten all about it. Jarras's opinion was that the colours ought to have been left with the regiments, who would have destroyed them, as they did at Sedan, without the enemy's attention having been brought to the matter. If any action had been taken he would have recommended an absolute order, to all concerned, to destroy the colours and arms, and to flood the magazines before signing the Convention, as is ordered by the French Regulations, which bear great weight, as being the product

of long war experience. The day of the 28th passed quietly except in the town, where a mob had to be dispersed by the Guard. General De Cisse reported in the evening a projected rising, headed by certain Officers, with a view of breaking out, but precautions prevented anything but a partial attempt, which completely failed.

Bazaine went in the morning of the 29th with his escort to Longéville, and Jarras saw no more of him, though he received a letter, saying Prince Frederick Charles would receive the Marshal at either 5 that evening or at noon on the 30th. The Staff orders were regularly issued up till noon on the 29th, the time arranged for surrender, and at 8.30 on the morning of the 30th, Jarras quitted Ban-St. Martin to go to Frankfort-on-Main, the town appointed for his residence, as prisoner of war. At the Conseil de Guerre it was stated that the Staff had made inefficient arrangements for rationing the troops during the last few days, but Jarras affirms stoutly that orders were issued on the 26th for field army and garrison to share alike, and, unless in some small detail, this was carried out, otherwise the Corps Commanders would have reported the circumstance. Stiehle had given Jarras assurances that rations and bed straw were ready at Ars, but there was some hitch among the subordinates, and the stores were only partially utilized.

Bazaine said at his Court-Martial that he never had the archives of his Staff in his possession, which was true, and that Jarras had carried them off, which was false; as a matter of fact, they were placed in the Jesuit College, and restored to the French Government, intact, after the war. During the captivity, Bazaine frequently wrote to Jarras, asking him for the papers or begging him to state their location; this Jarras wisely refused to do; his letters would have been opened and the documents for ever lost to France, besides the safety of their custodians would have been imperilled.

Jarras lays no claim to have written the history of the siege, but only to have faithfully recorded the particulars which he personally saw of the history of the Army of the Rhine, from its formation to its fall. The souvenirs bear the impress of truth, and, from the very fact of his not mentioning things with which from hearsay he must have been fully informed, an accrued value is put on the narrations of those matters which he saw and recorded.

It is somewhat startling to find that the "Souvenirs" make no mention of the serious weakening in the German forces surrounding Metz during the 27th and 28th of August, when two complete Army Corps moved north-west from the beleaguering line to support at need the attack on MacMahon's Army.

The deductions that follow from a study of these remarkable "Souvenirs" are varied, although perhaps they are more valuable than new.

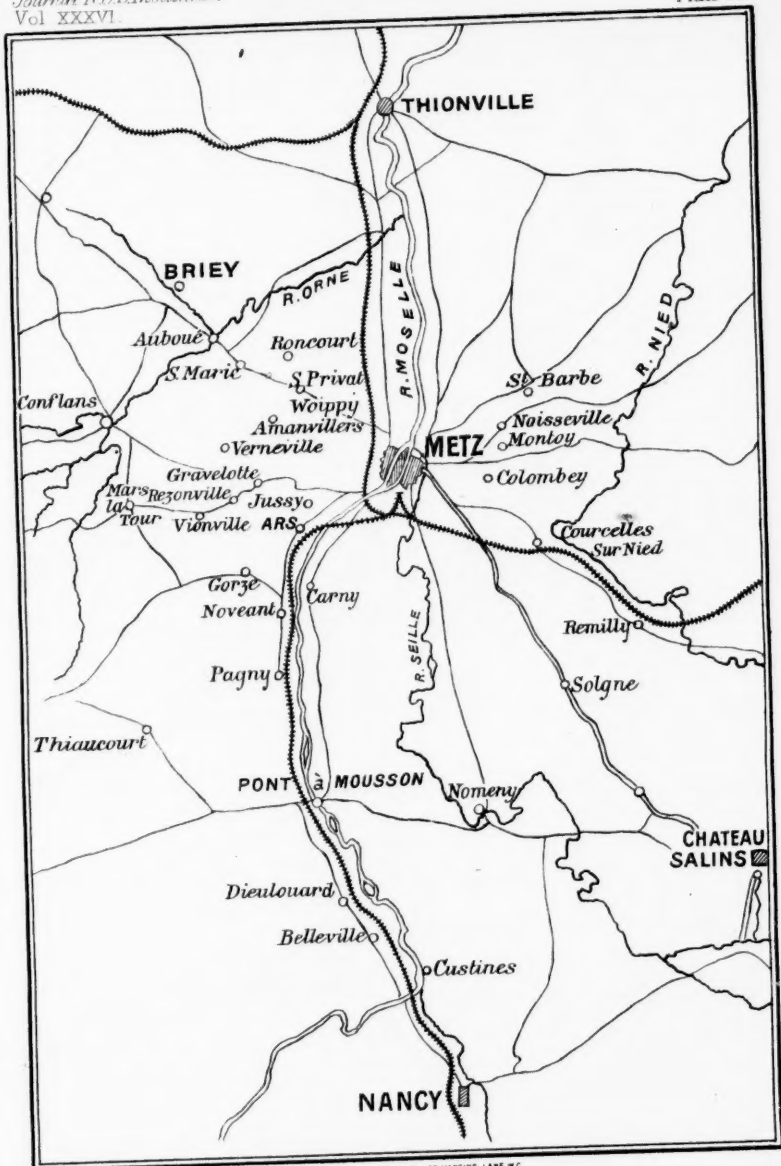
All organization for war against a considerable enemy must necessarily be made in peace, if full justice is to be done to the fighting material of a nation.

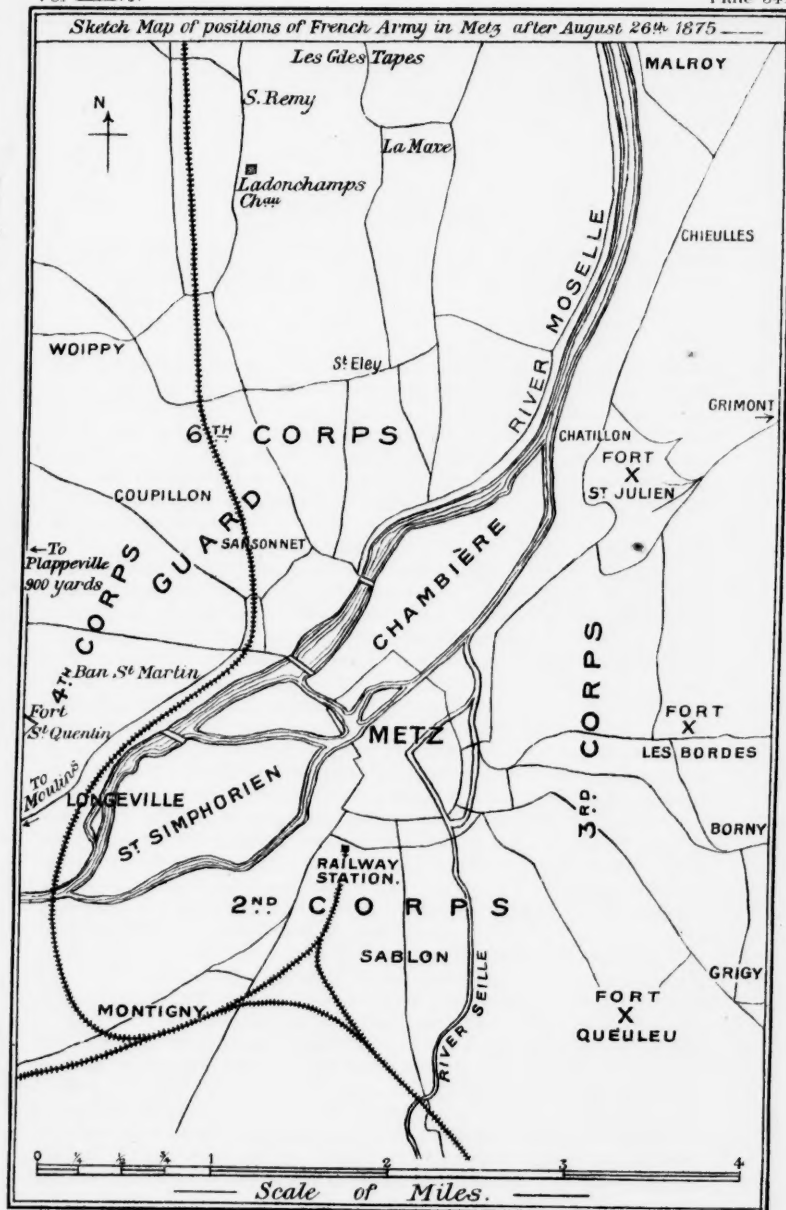
Foreign assistance in a selfish quarrel is not to be reckoned on, even when dangled before longing eyes by authorized personages.

Haphazard appointments to command or to Staff on the outbreak of war are ill-advised, and tend to disaster: Officers and men accustomed to united work have increased efficiency.

The best of troops, if placed in false positions, are not to be depended upon for resisting high pressure; and, above all, homogeneous working between the different portions of a country's forces must be fostered in peace to ensure their just advantages in war.

Marshal Bazaine was a soured Corps Commander, and neither gave confidence to, nor gained confidence from, his personal Staff; and the man himself was inappreciative of his own and his Army's necessities. Confidence well bestowed is seed sown on fruitful ground; the reverse, in his case, brought forth fruit of the class to be expected from his surroundings; whether the quality of fool or rogue predominated in his character is a study for casuists; but, till the war of 1870-71 had run its course, the human race had no knowledge of the disasters, amounting to temporary ruin, that a few weeks of active misbandling of gigantic numerical forces, following years of faulty organization, could entail on a leading military nation among European States. France has learned her lesson, and it is to be hoped that other peoples may take due warning from her dearly-bought experience.





THE RUSSIAN NAVY.

(Translated by permission from the "Internationale Revue ueber die Gesammten Armeen und Flotten," by Captain H. W. L. HOLMAN, R.M.L.I.)

I.

SINCE the dissolution of the Alliance of the Three Emperors, since the time when Bismarck gave Russian diplomacy to understand that he had drawn closer to his more natural and more trustworthy allies, since Italy too has joined the league of peace, finally, since the Central European Powers and with them England more or less, have taken up an unmistakable attitude regarding the Bulgarian confusion, Russia's Army has experienced vast reorganizations and has made tremendous progress.

The great fault of the Russian Army lay, as the last two Turkish wars proved, in the cumbrous mobilization plans, which did not at all meet the requirements of modern warfare. Even when we read the history of the Crimean War, when the Russian corps after long, fatiguing and killing marches, appeared decimated on the theatre of war, when we estimate the weak forces they hurled against the Turks at the last crossing of the Danube and Balkans, when we remember the fruitless exertions of the brave Skobelev before Plevna, when we place before our eyes the mission to the Roumanians, which called on them for the sake of the Cross to hurry up to their assistance, we must finally arrive at the conclusion, either, that a few years ago Russia saw no probability for a long time of any conflict except with the Turks, against whom matters could certainly be taken more easily, or else, that she was very much behindhand in the art of war and did not know what a plan of mobilization really meant. But affairs have vastly changed in the last few years. From the furthest corners of the mighty and extensive Empire of the Czar, soldiers have hastened like swarms of bees, to the West.

The German and the Austro-Hungarian frontiers are lined with a huge multitude of warriors of all arms; thousands of guns, a forest of bayonets and hundreds of thousands of horses stand ready to pour with Asiatic savageness into civilized countries. The greatest military force is concentrated on the western frontier of the Empire, already half mobilized, at any rate perfectly capable of being mobilized in a very short space of time. With the reorganization of the plan of mobilization and the redistribution of whole armies, all sorts of other reforms went hand in hand, in which the Navy was naturally not left out of consideration. While we leave it to others to increase the many studies of the latest times on the Russian Army by further

contributions—for a future enemy can never be studied too much—we will turn our particular attention to those reforms and innovations which affect the Russian Navy.

II.

We need not take the map in our hands, for every one has the Russian frontier so far in his head to satisfy ourselves that Russia's extent of coast line is enormous, and that for the defence of so vast a littoral a large fleet is necessary. It also happens, unpleasantly for Russia, that the coasts referred to are not contiguous, and are widely separated from each other. Indeed on the eastern side of Europe the Russian shores form the boundary of the whole Continent. Eastward from Varanger Fiord the whole northern stretch of Europe and Asia belongs to the Russians. Separated from this is the Baltic coast from Tornea to Polangen. Finally, in the south, the Black Sea from the Danube to beyond Batoum is Russian. To these must be added the possessions on the north-east coast of Asia, and the large lakes and rivers which must also be provided with men-of-war. Certainly a portion of these coasts defend themselves, for an attack on the shores of the Arctic Ocean is not to be imagined. But even if we leave the inhospitable northern coast out of consideration there is still a great deal left. Russia has, therefore, for a long time endeavoured to have a good Navy at her disposal, and possessed one indeed even before the perils of the last war. In the year 1880 the Russian Baltic Fleet numbered 10 sea-going iron-clads and 13 coast defence vessels (Monitors) of 1,500 to 2,000 tons, which could have rendered excellent services in northern seas. Added to these were about a dozen very elegant cruisers, which were generally cruising abroad, and which were greatly admired by connoisseurs on account of their beautiful build. A number of gun-boats, yachts, training ships, &c., completed the floating matériel.

In the Black Sea, in accordance with the Treaties, Russia possessed no Fleet, except small vessels and the Popoffkas, which, if we are not mistaken, were built between the years 1872 and 1876. She numbered at that time little more than half-a-dozen unarmoured ships of about 1,200 tons, and 10 or 12 of 500 to 700 tons.

The flotillas for Siberia, the Caspian Sea, Lake Aral, and the Oxus consisted of smaller ships.

The want of a suitable naval force in the Black Sea must have been painfully and bitterly felt in Russia, especially at the time of the last Turkish War, when an ironclad squadron would not have failed to operate against Constantinople. The will of Peter the Great, and the final aim of Russian politics, always points in the direction of Aja Sophia; if the way thither seemingly leads—taking the present state of affairs into consideration—through Berlin or Vienna, yet the possibility of a final understanding, of an agreement with the Central European Powers, must not be regarded as out of the question; and Turkey will for a long time remain for Russia the neighbour to be ultimately fought. But to operate with success

against Turkey and to lighten the heavy task of the Army, Russia, would require a strong fleet, composed of first-class battle-ships, to act in the Black Sea. The Russian Government and diplomacy, therefore, troubled mighty little about the winged words of the foreign press which drivelled about broken treaties, &c., and, knowing that on this account none of the States that were parties to the treaty would draw the sword, she one fine day renounced the stipulations of the Peace of Paris and laid down the keels of the armoured cruisers "Sinope" and "Cesme" in the docks of the Russian Steamship and Commercial Company, at Sebastopol. On the 5th October the keel of the armour-clad turret ship "Catherine II" was laid down at Nikolajeff, with a great display of pomp, and accompanied by stirring speeches which found a tremendous echo at Moscow and St. Petersburg. This event took place for the other two ships named a couple of days after. The fact that the Admiral of the Fleet, the Grand Duke Alexis, went down to the south for this ceremony is of marked significance.

We shall see later on, relative to the number of ships to be built for the Black Sea Fleet, what objects Russia is pursuing, but we must just mention here that, according to the Fleet programme of 1882, the huge ironclads to be employed there will be the most powerful of the whole Russian Navy. The "Catharine II," "Sinope," and "Cesme," which were launched in 1886-87, when completely fitted out, showed a displacement of 10,180 tons. An armoured belt of 457 mm. (18-in.) stretches the whole length of the ship and forms, with the 76-mm. (3-in.) strong, armoured deck, a particularly effective protection. Six 30½-cm. (12-in.) Krupp guns are in a citadel, on disappearing carriages, so that they are only visible in the firing position. Seven 15-cm. (about 6-in.) guns, two of which are bow and two stern guns, together with ten machine-guns, complete the armament.

Their twin screws, with engines of the three-cylinder type of 9,000 indicated horse-power, give a speed of 15 knots. Finally, the coal supply amounts to 872 tons, and admits of their steaming four days at an average speed of 14 knots.

The re-formation of the Black Sea Fleet necessitated the restoration of Sebastopol to the rank of a first class naval port. For a long time it was doubtful whether Sebastopol should be finally fixed on, but in the end this port gained the day. A commencement was made with the building of a dry dock—strictly speaking two dry docks; the laying of the foundation stone followed, likewise in the presence of the Grand Duke Alexis, on 6th October, 1884 (the works were commenced in 1882). They are in the same place (Korabelnaja Bay) as the granite dry docks destroyed after the taking of Sebastopol, in 1855. These docks are respectively 182.5 m. (about 600 ft.) and 140 m. (about 459 ft.) long at the water line and 37½ m. (about 122½ ft.) broad, with an average depth of 8.4 m. (about 27½ ft.). Each dock is emptied within 8½ hours, by means of two centrifugal pumps. The cost was declared to be in round numbers 3 million roubles (about 300,000*l.*). As a matter of course, the old fortifications have been restored and arranged to meet the latest requirements

of the science of war. Last year two new forts were built, one on the right bank of the Tchernaja and the other on the hill where the English constructed Fort Victoria during the siege of 1854. These two forts command the whole of the open country round Sebastopol, and would render a second edition of the events that took place during the Crimea considerably more difficult and almost impossible. It is hardly necessary to mention that the entrances to the harbour are barred and defended by rows of mines and torpedo stations.

Of course the great attention that was paid to the Black Sea necessitated a large sacrifice of money. In an autocratic State, where it is not necessary to wrangle about every penny with members and representatives, it is an easy matter to procure money, as long as the State enjoys credit; still, taking into consideration the low strategic value of Archangel, and after searching investigations had been carried out by the War Office, Admiralty, and the General Staff, the Russian Government decided, in 1887, to leave this far northern arsenal entirely out of the question, and to let the development of Sebastopol benefit by the expenditure saved thereby. In a word, Sebastopol has become the pet of the Russian War Administration.

If we look at the map more closely and collect from the geographical and political writings of the very latest years those notices that relate to further completed or projected works in the Black Sea and in the neighbouring eastern countries and those beyond them, a new horizon opens up before our eyes, and we perceive that the Russian preference for the Black Sea springs from far deeper motives. It is not alone the contingencies of a war with Turkey or with the Central Powers that is rousing Russia to such feverish activity, it is not with the view of hemming the Crescent in on all sides, but the strategical and commercial importance of the Black Sea, which increases from day to day. We must not forget that the Balkan countries had only a momentary importance for Russia, that she has aims in Asia also; that there are there, without thinking of further conquests, vast territories which, better cultivated and brought into closer connection with the civilized world, must develop extraordinary productiveness.

Now if we examine what the works are that we touched on above, and which are partly projected, partly finished, or in course of execution, we must mention, as the least of them, the cutting of the isthmus of Perikop, which joins the Crimea to the mainland of Russia. According to the plan before us, the canal (the cutting of it began in 1888) is to pass through Perikop, Goutschar, Sivash, to Genitschesk, and will be 118 km. (about 73 miles) long; its breadth at the bottom will amount to 20 m. (about 65½ ft.) and its depth to about 3½ to 4 m. (about 10 to 13 ft.). The canal is therefore calculated to take coasting vessels, torpedo-boats, and coast defence vessels, and, according to the preliminary estimates, is to cost 85 million roubles (about 8,500,000*l.*), and to be opened for traffic in 1893.

If we consider that by means of it the mouths of the Danube, Bug, and Dnieper are brought 140 knots nearer to the ports of Berdjansk, Mariapol, Taganrog, and the mouth of the Don, and that it will lead to

a quicker and shorter sea passage between the terminus at Odessa and the railways running from the Sea of Azov, we can understand that the commercial advantage of the canal will be as great as its strategical value. From the strategical standpoint not only the 114 knots shorter voyage must be taken into account, but also the greater protection the torpedo-boats and coast defence vessels will find than by going round and doubling the Crimea. They will more easily avoid danger from hostile ships and also the bad weather that generally manages to rage in the Black Sea.

Another important step of the Russian Government was the founding of Novorossisk. Novorossisk lies at the end of that beautiful deep bay, which was better known by the proximity of Soudjoukkalé, and which is separated from the sea by a flat spit. The northern spurs of the Caucasus end there. The bay is almost 10 km. long and 3 wide, with an average depth of 12 to 13 m. (about 39 to 43 ft.), and $4\frac{1}{2}$ to 8 m. (about 15 to 26 ft.) by the piers. The construction of the harbour has cost the Russians about 40,000,000 marks (2,000,000*l.*). A single line of railway was at once laid to Rostow, which branches off at Tischoretzkaja to Wladikavkas. The latter part of the railway runs along the northern slopes of the Caucasus, through exceptionally rich districts, a truly "Promised Land," that would only require the busy hand of man to produce enormous quantities of grain. As, furthermore, the project for tunnelling the Caucasus and the connection of Wladikavkas with Tiflis, hitherto looked upon as to a certain extent impossible, approaches realization, we can judge of the strategical importance and the commercial future of Novorossisk. In the "Mittheilungen aus dem Gebiete des Seewesens" we read the following interesting remarks on it:—

"To the immediate north of the Caucasus extend wide stretches of fertile country, towards which hundreds of peasants coming from the north wend their way each year.¹ Twenty years ago the whole district of Stavropol was inhabited by Cossacks, who by the pressure of the peace-loving peasants, have now, also, for the most part lost their warlike and even predatory spirit. In consequence of this movement of the population towards the Caucasus, Russia, it is true, loses her Cossacks, but, on the other hand, she gains a pushing peasant population which gravitates with its products towards the Black Sea. Formerly the Stavropol district only yielded horses during peace, and wild, hungry Cossacks in war time."

But, Novorossisk is also of great importance for the exportation of petroleum as well as for corn. The districts which harbour the petroleum treasures of the Caucasus are Baku, on the Caspian, and Taman, on the Black Sea. The former region sends its products by Batoum. The 600 miles of railway journey is, however, no light matter for the cargo and is expensive. By the diversion of this branch of commerce to Novorossisk, matters assume a more favourable aspect; the region of the springs is only 60 miles distant from the port and is connected with it by a line of pipes.

¹ From another periodical we learn that many German colonists also have settled in the Tischoretzkaja-Wladikavkas district.

Besides the commercial advantage that arises therefrom, the Russian Fleet obtains a cheap fuel, at least for a portion of its ships; a matter that must not be under-estimated. In the event of an outbreak of hostilities, the Russian Black Sea Fleet would probably be thrown back on the coal supplies that had been stored up before the war; this was the case in the last Russo-Turkish war, and the supply ran so short towards the end of it that several steamers could not put to sea on account of the scarcity of fuel. When the burning of petroleum is introduced, Russia will be quite independent in this respect and, covered by the battery of Soudjoukkalé, the Russian men-of-war will be able to pump their fuel on board from the reservoirs of Novorossisk and keep at sea with the supply twice as long as with coal. With its resources in corn and oil, Novorossisk has all the properties of a naval port that would play an important part in a war, as it doubtless seems called upon to do.

There is, however, another point of view from which the foundation of Novorossisk seems important, and that is from strategic railway point of view. The laying down of the line from Wladikavkas to Petrowsk, on the Caspian Sea, must be looked on as impending, and then Russia will have two parallel lines at disposal, so that in case of war she will be able to throw her resources from the Caspian Sea and the Volga to the Black Sea and *vice versa*. As if such works and projects were not enough, we read in the papers a couple of years ago, that the Russian Government had granted to a Franco-Russian company in Odessa a concession for the construction of a canal joining the Black Sea with the Caspian, and which, with a length of 85 km. (53 miles), was to cost 40,000,000 roubles (about 4,000,000*l.*).

Everything we have quoted so far gives the Russian Empire an extraordinary power of resistance in the Black Sea, and it cannot be denied that the Black Sea Fleet is receiving a support that makes it powerful. But it would be foolish to fix our thoughts only on this point and to look upon the gigantic railway and other works simply as a means of support to the Fleet. Still more foolish would it be to believe that all these preparations are taking place in view of an approaching war with the Central Powers.

If we hold the map before our eyes for a short time longer, we must rather arrive at other conclusions. The present position of Russia with regard to the Central Powers is somewhat strained, it is true, but the possibility of a final agreement, as we have already said, is not entirely out of the question. What are the Balkan countries, which, if some of them do for the moment partly rave for Russia, would not long bear the Russian yoke—what are they, we say, in comparison to the Asiatic territories where Russia is called on to play a part? Servia and Montenegro are the only fanatical people who look towards St. Petersburg, but the civilization of the Servians is too advanced to really believe that present circumstances will last long. And the handful of Crnogorzen need not trouble anyone. Like the Bulgarians, the Servians cannot possibly wish to willingly sacrifice their freedom and independence; sooner or later this coquetting will come to an end, and in one way or another peace

and order will be restored. It is, also, to be hoped that the horrors of Siberia will cease, and that Russia will undertake a more civilizing mission, as, indeed, she has carried out, it cannot be denied, for some decades past in Asia, but not with the energy that would have been possible with otherwise normal circumstances. The construction of the Siberian railway is an important civilizing step, and if we look further towards the south, the other line along which the iron horse races strikes our eye, and which, starting from Usan-Ada, on the Caspian Sea, leads through Merv, Bokhara, and Samarkand to Tashkend (this last branch is still under construction). At three points on this railway, namely, at Duschak, Merv, and Tocharaschin, branch lines are planned towards the south. The main line itself is, in time, to be continued on one side to Orenburg and on the other to the Altai and towards the Siberian line. There is a further idea of joining the Amu-Daria with the Caspian. A couple of years ago, A. J. Gluchowski pointed out in the "Company for the Promotion of Russian Commerce and Industry," in St. Petersburg, that the execution of such a junction would prove by no means difficult. The Amu-Daria could be led into the Kun-Darja; it would fill the basin of Ssarakamysh and go from there through the Usloj to the sea, or, by going round the basin, a canal about 75 versts long would have to be made which would likewise fall into the Usloj. The former plan would cost 15 millions, the second 27 millions. Russia certainly will not let this idea fall, as here, also, it is a question of changing boundless and fruitful stretches of country, now lying bare, into cultivated land.

They are therefore mighty roads from Siberia, China, Persia, Afghanistan, Northern India, &c., which are meant to have their termini on the Black Sea; and Russia naturally cannot then leave such a coast unprotected and undefended. She wants, therefore, a strong, powerful fleet to protect the trade there and to promote the development of her merchant navy. May God grant that the newly arisen or reconstructed Black Sea Fleet may only have to fulfil such peaceful and civilizing missions! Russia and the whole world will reap nothing but blessings from it, and the Russian people will be more thankful to their Czar than if he leads them into a war that can in no way bring any good and will throw millions of widows and orphans into misfortune and misery.

III.

In the Black Sea there was naturally more to do than in the Baltic. The Baltic Fleet numbered a whole lot of vessels, and it was only a question of adapting them to the demands of the science of modern war. Accordingly new ironclads have been built, and a large number of torpedo-boats bought.

Of course the completion and reform of the fleet follow a fixed plan, namely, the building programme sanctioned by the Czar in 1882.

According to the same, the Russian Navy is divided into four fleets, namely:—

1. The Baltic Fleet.
2. The Black Sea Fleet.
3. The White Sea Squadron (Siberian Flotilla).
4. The Pacific Squadron.

The building programme is to be completed in twenty years from 1883, that is, in 1903, when the different divisions will consist of the following ships:—

Baltic Fleet:—

- 11 First-class ironclads of 10,000 tons displacement.
- 4 Second-class " " 7,000 " "
- 11 Gunboats.
- 10 Cruisers " 3,800 " "
- 6 Transports and a corresponding number of torpedo-boats.

Black Sea Fleet:—

- 8 First-class ironclads of 10,000 tons displacement.
- 6 Dispatch cruisers.
- Torpedo and gunboats.

The total cost of building these is reckoned, in round numbers, at 900,000,000 francs (36,000,000*l.*) ; so that the yearly quota amounts to 45 millions, of which 20 millions fall to the ordinary and 25 to the extraordinary expenditure.

Of the new ships for the Baltic Fleet, 7 ironclads are finished and 3 others in course of construction. The displacement of the ships built does not exceed 9,000 tons, which, perhaps, seems more suited to circumstances in the Baltic.

The new Fleet programme and the technical changes in the matériel of the Fleet, and, finally, the introduction of the torpedo, rendered a reorganization of the personnel and administrative authorities necessary.

As far back as the year 1883, the Director of the Ministry of Marine received the full power of a Minister of Marine. A special Admiralty Council acts as the supreme naval authority, and in which the Director of the Ministry of Marine has a seat and voice as President representative.

In the highest naval department were united those matters which regard the tactical direction of the Fleet and its employment in case of war and those dispositions which refer to the fitting out and the personnel of the Fleet.

A Marine Scientific Committee follows the progress of naval science and sees to the introduction of new inventions.

Finally, a Shipbuilding Commission studies the plans of ships and occupies itself with the completion and equipment of ships, as well as with arming them. It lays plans before the Minister of Marine, makes reports and submits tenders which refer to the building of new ships. The work of the Shipbuilding Commission is examined beforehand, however, by the Marine Technical Committee.

In the year 1885 followed a reorganization of the personnel of the

Fleet. Up to that time there existed the "Pilotage Corps" and the "Marine Artillery Corps," which were now broken up. Furthermore, a reduction of the active list of Officers, which consisted of 100 Admirals and 2,235 Officers, was considered desirable. After the reorganization of 1885 this number was reduced to 1,563. Russia now numbered an Admiral of the Fleet, a few Admirals, 20 Vice-Admirals, 35 Rear-Admirals, 86 Captains, 194 Commanders, and 529 Lieutenants and Sub-Lieutenants.

With regard to promotion, it was laid down that it should take place by seniority or out of turn.

The following are the rules as to the minimum sea time for promotion by seniority:—

Sub-Lieutenants and Lieutenants have to make up 4 years', Commanders 6, and Captains 8 years' sea time. Promotion out of turn in peace occurs among superior Officers (Commanders and Captains) only; they must have at least 5 years' service in their rank. In war-time other Officers can also be promoted out of turn, if they have, however, at least 3 years' service in their present rank.

Officers who have reached 55 years of age without being promoted to superior rank (Commander) are to be placed at once on the retired list. The same holds good for superior Officers at 58 years of age. Finally, Admirals are retired on the completion of their 63rd year.

Officers who have been in action and have served 28 years have the right to receive honorary rank, also those who have served for 33 years, and Commanders and Captains of 35 years' service, and Rear-Admirals with 40 years' service. Sub-Lieutenants, Lieutenants, and Commanders receive the retired pay of their rank, if they have served at least 1 year, and Captains if they have served at least 5 years in their rank before being pensioned.

Soon after the reorganization of the list of Officers followed the sanctioning of new and particular regulations for Constructors and Engineers.

The Russian Engineer Corps has five grades, as follows:—

1. Chief Constructors and Inspectors of Machinery, with the rank of Rear-Admiral, 3 for each branch.
2. 1st Class Constructors, 15 in number, and Fleet Engineers, 8 in number, with the relative rank of Captain.
3. 2nd Class Constructors and Engineers (23 and 28 respectively), with the relative rank of Commander.
4. 1st Class Assistants, with the relative rank of Lieutenant.
5. 2nd Class Assistants, with the relative rank of Sub-Lieutenant.

The Construction and Engineer Corps is recruited from the pupils of the construction and engine building section of the Naval Technical School, who are admitted into the corps as 2nd Class Assistants after examination. 2nd Class Assistants of the Engineer Corps may be embarked in steamers of the mercantile marine to learn engineer duties; they draw an addition of 720 roubles a year for this service.

The following rules have been laid down for promotion:—

2nd Class Assistants can only be promoted after 4 years' service; 1st Class Assistants after 8 years. The latter must during this time have done some construction work and satisfactorily accomplished some task set them by the Naval Technical Committee.

2nd Class Constructors must have served at least 5 years in that rank before they obtain promotion.

Assistant Engineers have to fulfil the same requirements as the Assistant Constructors, and in addition they must have been embarked for 1 year in foreign waters or 2 years in home waters. A 1st Class Assistant must have been embarked for 2 or 4 years respectively during his 8 years' service.

An Engineer can be made Fleet Engineer on completion of 5 years' service in his rank, if he has been embarked in a first class battle-ship for 1 year abroad or 2 years at home. The execution of construction designs or detailed plans of a ship's engines may make up for want of sea time. One-third of each branch of Engineers may be promoted out of turn.

The 1st and 2nd Class Constructors receive for the construction plans delivered by them a remuneration of 450 roubles yearly *pro* 1,000 tons displacement till a yearly maximum of 1,350 roubles is reached. The Engineers receive an addition of 300 roubles for satisfactory duty on board ship.

Constructors and Engineers may be granted leave with deduction of pay for the space of 3 years for service in the mercantile marine.

Constructors and Chief Constructors who remain more than 5 years in their rank receive a yearly increase of 2,500 roubles for good service. The same applies to Engineers of corresponding rank.

Engineers are at once retired when they reach the following ages without having complied with the regulations for promotion:—

2nd Class Assistants when they have been longer than 10 years in that rank. 1st Class Assistants at the age of 47, 2nd Class Constructors and Engineers at 55, 1st Class ditto at 58, Inspectors of Works at 65, Chief Constructors and Inspectors of Machinery at 68.

The claims for being granted honorary rank on transfer to the retired list are as follows:—

1st Class Assistants who have been in action and have 25 years' service; all Assistants with 33 years' service. In all other ranks 33 years' service is required; for Inspectors of Machinery, however, 40 years' service.

For recruiting the personnel of the Fleet, Russia possesses the splendid Naval College at St. Petersburg (Wassili Ostrowo). Its teaching and superintending staff numbers 1 Rear Admiral, 1 Director of Studies, 1 Director of Military Training, 5 Class Officers, 12 Officers, and 130 civil officials. The period of instruction lasts four years, and before the pupils are accepted an entrance examination has to take place. Besides professional subjects, English and French are taught at the College. There is furthermore a Technical Military College in Cronstadt which is given up to the Engineer branch. The higher Academy in St. Petersburg is only meant for

Officers and Engineers. All these institutions have already been discussed in this periodical, and we may therefore content ourselves with this slight reference to them.

For special courses there are one or more gunnery ships, and a torpedo course for Officers at Cronstadt. The period of instruction at the latter amounts to eighteen months. For petty officers there are torpedo schools at Odessa, St. Petersburg, and at the present time, one at Sebastopol. The Naval School of Musketry founded at Oranienbaum forms a speciality of the Russian Navy. At it Officers, as well as petty officers, are exercised and instructed in shooting with small arms, in gymnastics, in fencing, in small-arm drill, and duties under arms. Pupils who have passed find employment as instructors. The Commandant is a superior Officer, who is directly under the Chief of the Admiral's Staff; two Officers act as Instructors. The establishment of pupils is made up of 12 Officers and 121 petty officers of the Baltic and 2 Officers and 20 petty officers of the Black Sea Fleet. In order to carry out drills for landing parties as well, this establishment has six rowing boats, two steam launches, and a corresponding number of land service and quick-firing guns attached to it. There is a remarkable order, according to which drill days in the boats count as regulation sea time for the Officers. Ammunition for practice is allowed as follows: 200 rounds of Berdan ball cartridge, 100 rounds of blank cartridge, 200 revolver cartridges, and 300 rounds of needle-gun cartridges for each pupil.

With the large effective list of the Russian Navy, the Admiralty is obliged to retain a large number of ships in commission, so as to keep all the Officers in constant practice. Now, as navigation is impossible in the Baltic during the winter months, the summer is made use of all the more. The same may be said of the Black Sea, which is not indeed frozen over in winter, but is frequently visited by fearful storms. For the great summer manœuvres, which take place yearly in Russia also, the Ministry fits out rather a large number of ships. The different military periodicals bring out regular reports about them every year, and therefore we need not go closer into this subject. We must further observe that Russia keeps a squadron permanently in commission in the Mediterranean, and another in Eastern Asiatic waters, also that Russian particular service ships are to be found in all parts of the world. As regards cleanliness, order, discipline, and seamanlike capability, every one who has had the opportunity of visiting and observing Russian men-of-war must admit that Russia is second to no navy in the world in these respects, and could even give points to several big maritime nations. In sail drill, as well as in exercising at clearing for action and landing parties, in short, in all nautical and military exercises, the Russian naval Officers and seamen earn for themselves the respect of all sailors. We need hardly mention that just lately some of the best tactical studies and theories have been published by Russian Admirals.

In order to stimulate the scientific education of the naval personnel, the Russian Ministry of Marine publishes from time to time a few

Prize Essays, the best of which are rewarded with large sums of from one to two thousand roubles.

We will finally relate the dispositions which the Admiral of the Fleet, the Grand Duke Alexis, has taken with regard to the readiness for active service of the torpedo-boats, and which are in force at the present time.

The torpedo-boats have always got their complete personnel told off to them. They, as well as their crews, belong to the different squadrons of the Fleet united at Cronstadt, in the proportion of fifteen boats per squadron at the most.

The crews of each fifteen torpedo-boats are formed into one company.

The command of each torpedo-boat is only given to senior Officers at times when manœuvres are to be carried out, preferably to Officers who have passed the torpedo course, or who belong to torpedo companies.

The superintendence of the torpedo-boats and their personnel is entrusted to a senior Officer, for choice a torpedo Officer.

The companies are commanded by senior Officers who have gone through the torpedo course; for winter drills two torpedo Officers and two technical workmen, who are familiar with the Whitehead torpedo, are added to them.

The preparation of instructions for the arrangement of details falls to the Chief of the General Staff of the Fleet.

With regard to ships' companies, it was laid down last year that the crews of ships and squadrons, with their Officers, should be kept together during the winter also, and on all occasions while disembarked. Accordingly, the seamen depôts have been reorganized, and number eighteen depôt companies in the Baltic and six in the Black Sea. The same Officers who belong to the companies for embarkation act as company Officers and as Commandants of depôts. These dispositions have been taken, with regard to facilitating and hastening fitting out of ships and for the better maintenance of discipline. The advantage that thereby accrues to the Navy is palpable; however, in other navies, where the period of service is short, the same would not be practicable.

IV.

We saw above, that at the same time as the sanctioning of the new Fleet programme, a Siberian Flotilla and a Pacific Squadron were also mentioned. We were unable to gather accurate and extensive data about these two divisions of the Russian Fleet. The little we could learn is as follows:—

The Siberian Flotilla consists only of a few cruisers with, roughly, 1,000 tons displacement, of half a dozen gunboats, of several steamers for the rivers, and a corresponding number of torpedo-boats. That the flotilla is not neglected is proved by the fact that the professional papers pretty frequently announce the building of new ships for this division.

The Pacific Squadron only consists of cruisers (clippers) and smaller ships, such as gunboats, torpedo-vessels, &c. In Eastern Asiatic

waters, in China and Japan, Russia always maintains a squadron of from seven to nine ships, chiefly clippers and larger gunboats, which are under the command of a Rear- or Vice-Admiral. In former years this division belonged to the Baltic Fleet. This is probably no longer the case, and the squadron in question forms part of the Pacific Fleet.

Service papers of the past year announced that the headquarters of the ships in Siberia, namely, Vladivostok, was to be made into one of the strongest naval ports, and also that a dry dock was to be built there. The ships of the Volunteer Fleet have organized a regular service between this port and Odessa, and the passage is made seven times a year. As regards communication by land, we know that Vladivostok is to be the terminus of the Siberian railway which is in course of construction. As the Odessa-Vladivostok ships can only run in summer, connection with Russia in Europe is kept up during the winter by land *viâ* Tura, Irkutsk, Blagowietschensk, and Kabarowska. Two months and a half, or a continuous (night and day) journey of six weeks, is required to cover the distance to St. Petersburg.

The Fleet programme makes no mention of the Caspian Flotilla nor of those on Lake Aral and the Oxus. Indeed, the Aral and Oxus flotillas were declared to be broken up a few years ago, but, as far as we could gather, the matériel still exists and in case of need could easily be got ready for service. When, moreover, the Caspian is connected with the Black Sea by a canal, as planned, and the Amu-Daria has also been led into the Caspian, the Black Sea ships will easily be able to undertake a trip into the interior of Asia, and then the Black Sea will also be able to provide the inland seas of Asia with men-of-war. The Aral Sea Flotilla numbered at the time its dissolution was decreed four paddle-wheelers, a few steam launches, and several sailing ships. On the Oxus there were six paddle-wheelers, among them four that could be taken to pieces. The flotilla on the Caspian Sea numbers four gunboats of 200 to 400 tons displacement, a dozen paddle-ships, and several steamers for traffic, which in case of need could be used as men-of-war. Russia's intentions with regard to these waters are hard to divine, and the Russian Government will probably assume a waiting attitude before it carries out any decisive steps. The first thing is to strengthen her own position in the Black Sea; everything else is easier.

That Russia does not leave her inland waters out of consideration is proved by the recent building of a stern-wheeler to take to pieces, which was supplied by Yarrow and Co. According to the conditions of the contract, this steamer was to be adapted for transport over considerable distances by rail when taken to pieces, and on arrival at its destination to be put together without much trouble and waste of time. A further stipulation was, that the draught of the steamer was not to exceed 475 mm. (about 18 $\frac{3}{4}$ in.) with an armament weighing 7 tons and a sufficient coal supply on board for steaming twelve hours with full power. The speed was to amount to 10 knots.

Yarrow built the steamer in ten floating sections, whose dimen-

sions were so proportioned as to make each of them easily transportable on Continental railways.

We have been able to learn nothing as to the immediate destination of this vessel, nor whether, after the construction had fully answered the requirements, more of such ships capable of being taken to pieces were ordered. It is not impossible that the vessel supplied by Yarrow is now used as a model and that ships of this type are being built in Russian establishments.

Our thoughts again involuntarily recur to Russian preparations for a possible war with the Central Powers, when we read that Officers of the Russian Navy are on the Danube in order to learn pilotage duties there. We gather this news from German and Italian papers. We may at once connect this with the formation, a few years ago, of a Russian steamship company on the Lower Danube. It is not for the trade with the Danube countries that Gargarin has been working; Russia has much too extensive fields for commerce elsewhere, which demand her attention, and the object of her penetration on the Danube is palpable. But it is now still clearer by the appointment of Russian Officers to learn pilotage duties.

The so-called "Volunteer Fleet" will constitute a factor that must not be underrated in Russia's next war with any other Power. The ships of the Volunteer Fleet, about twelve in number, are, in peace-time, ordinary merchantmen, which can, however, in time of war, be easily armed and used for doing the work of cruisers. In 1885 this company undertook to cover 141,000 knots yearly, between the eastern Black Sea ports and the Russian ports in East Asia, in respect of a subsidy of 600,000 roubles per annum. The connection of this fleet with the State was formerly much too loose, in consequence of which, a new organization of it took place in 1886. According to the agreements of 1886, the Volunteer Fleet is under the Admiralty, but has its own management and capital. In peace it is bound to keep up regular commercial communication with East Asia. In its financial proceedings it is under the highest audit office.

The "Rivista Marittima" reports that at the present time a further reform of this fleet is in progress. The reforms will have reference to the composition of the Council of Administration and to the direction of business; the Navy is to have a stronger direct representation in the Council of Administration, as well as have the superintendence of it.

In war-time the Volunteer Fleet must be placed entirely at the disposal of the Admiralty. Its capital is to remain untouched during the war. Finally, the fleet receives subsidies from the State and mileage money as well.

The Volunteer Fleet, as we have already said, provides for the regular traffic between Odessa and Vladivostok. It runs, in addition, the tea trade and passenger traffic between China and the Black Sea. Among other things, its ships are also employed in peace as transports for troops, particularly for the transport of recruits and Reserve men between Odessa and Batoum.

In consideration of the direct and indirect benefit that the Navy draws from the mercantile marine and with regard to the general decay of the latter, the Russian Government, some five or six years ago, issued a law, by virtue of which private individuals are granted advances from the State for building ships, with the right of turning the debt over to the purchaser of the vessel. To avoid abuses, these favours are only accorded to professional shipbuilders who enjoy the best reputation. In giving publicity to this law, the "*Mittheilungen aus dem Gebiete des Seewesens*" made the following very true remark: "The reason for this subsidy on the part of the State must be sought for in the interest which the Government cherishes for the increase of ships which could be of use in war-time. Besides this, it is made easier for seamen to get ships, and the greater possibility of a livelihood is offered to retired naval Officers; finally, the number of sailors in the mercantile marine naturally increases with the number of ships, which again furthers recruiting for the Navy."

The Russian Navy costs the State over 40,000,000 roubles per annum, and the Budget has, indeed, increased during the last few years, as can be seen from the following summary:—

	Budget for the year in roubles.	
	1886.	1891.
1. Central direction and harbour administration	1,708,775	1,767,513
2. Rewards, allowances, retired pay	489,232	455,903
3. Naval educational establishments	515,098	538,082
4. Medicinal and sanitary concerns, hospitals	821,259	735,591
5. Pay of Officers on the active list, engineers, officials, wages of petty officers and men	3,775,764	3,359,520
6. Victualling	867,619	1,016,804
7. Clothing of crews	898,733	1,161,918
8. Sea service, training squadrons, particular service ships	4,915,577	5,237,074
9. Hydrographical service	419,159	453,388
10. Gunnery, torpedo, and mining departments, laying on electric light	3,105,168	3,944,245
11. Shipbuilding	15,685,940	17,525,573
12. Admiralty and dockyards (factories and work-shops)	1,396,077	2,527,815
13. Rent, maintenance, building, and repairs of buildings	3,035,651	3,626,763
14. Particular appointments	400,000	450,000
15. Sveaborg Harbour . . . . .	..	50,272
16. Sundry and unforeseen expenses	1,371,705	903,463
Total	39,405,757	43,759,924
		39,405,757
Increase of the Budget, 1886—1891 . . . . .	..	4,354,167

To this must be added the extraordinary expenditure, which, if the fleet programme is carried out consistently, will alone require a further 20,000,000 roubles per annum for shipbuilding.

If we examine the rôle which Russia's Navy might play in case of war, it is certainly weaker as compared with the united fleets of the Triple Alliance, but still strong enough, however, to manage a powerful and effective defence. But if Russia gets many more years' time, her Navy will reach an undreamed-of strength. For, if present circumstances do not change, on completion of the ships planned, another fleet programme will be prepared. For the moment, Russia reckons on help from the French. But the alliance of the Republicans with the autocratic Czar is something unnatural, and rests on sophisms. In spite of the great momentary sympathy between the people of the two nations, a continuous liking for France cannot last in Russia, at least, if we cast a glance at the traditions of the country. In any case, Russia is striving to be self-dependent, and she is therefore continually making preparations and building, till the time will come when she will feel herself strong enough to shake off her unnatural ally. God grant that the Central Powers may meanwhile settle pending questions with the Muscovite Colossus at the board of green cloth, and that Russia's Fleet will only be called on to fulfil missions of civilization! And in this direction there is abundance of work for Russia.

A LONG-DISTANCE RIDE.

Translated from the "Invalide Russe" by Captain E. LAMBART, R.H.A.

THE strength of the detachment was:—1 General Officer, 1 Colonel, 14 Officers, 1 trumpeter, 80 Cossacks, and 3 followers, with 3 transport animals (without wagons). They were ordered to march 400 versts (about 250 miles) in five days.

In order to make the ride more interesting and instructive, the country selected was Finland, differing widely from the steppes, the home of the Cossacks. As the population understand little Russian, and in some places none at all, the conditions of the ride approached more nearly in this respect those of active service.

The object aimed at was—having placed the Cossack and his horse under the conditions of very arduous campaign life (absence of transport wagons and very long marches), in the face of continual natural obstacles, woods and mountains in place of boundless steppes—to work out rules for the guidance of detachments and to test the endurance of horses and readiness of resource of the men; also by observing the Officers' chargers, to see how far the imported horse is suited for long marches. Five days beforehand, a non-commissioned officer and 4 Cossacks were sent out to reconnoitre the road. This non-commissioned officer marched 23 miles, to the village of Baylostrov, halted there for the night, and made enquiries from the inhabitants as to the road, and returned the next day by the sea-coast road through Sestroytz. He reported as follows: "The eastern road (the high road to Viborg) is paved with stone to the frontier, 35 miles from the capital, and the coast or western road is sandy throughout. The eastern road is completely free from the snow, but the western is covered with melting snow, especially in the woods and hollows. There are few villages, but at all the post-stations there are 'serais' capable of holding the whole detachment."

The day before starting, the Officers were furnished with routes notifying the halting places, and tables of phrases to be used in communicating with the inhabitants. The horses were in ordinary condition, not having been put into any training for the march.

The first march was to the village of Kivineb, 43½ miles from the barracks.

The detachment marched at 11 A.M., preceded by patrols with orders to avoid all possible obstacles. The Officers rode apart from the men 300 yards ahead, who marched by threes in full marching order under a Squadron Commander. The horses carried two days' rations for man and horse. The pace was alternate walk and trot of

a verst,¹ with a halt after every 8 or 10 miles, to adjust girths and loads. After each halt the men walked for a verst leading their horses.

A halt was made half way for an hour and a half, when the kits were removed, the horses fed with damped oats, and watered before starting again. Two verst from the end of the march, the men dismounted, loosened the girths, and led their horses in. On arrival, the horses were supplied with abundant hay and straw. The average pace of this march was 4 to 5 miles an hour, so that the halting place was reached about 9 P.M. At 11 P.M. the horses were watered and fed with oats, which they eat sparingly, preferring damped meadow hay.

On this march the thoroughbreds² showed more liveliness and go up to the last moment than the Cossack horses, but their soft stable-reared training showed itself at once when the weather changed during the night. As soon as a fine cold rain began to fall they became depressed and miserable, with staring coats, while the shaggy steppe ponies showed complete indifference.

The second day the march was resumed at 7 A.M., along an excellent road, in clear sunny weather, temperature 14° R. The 52 miles to Viborg were marched in ten hours, including a halt of two hours. On arrival, the horses were picketed in the manège of the artillery, and the men accommodated in barracks. The manège was still wet from the winter snow and rain, and, in spite of ample bedding, 75 per cent. of the horses did not lie down. Five troop horses could go no further, and were left at Viborg. The remainder were stale and weary on the next day's march to the waterfall at Imatra, 39½ miles, which were covered in nine and a-half hours. The slowness of this march was due, on the one hand, to the bad night's rest of the previous night, and, on the other, to the severe climb over the high Finland hills. On examining the horses it was found that the sandy and hilly road had worn the shoes of the forefeet very severely, in some cases the horn as well. Several horses had to be re-shod. Small brushes were noticed on the coronets, due to the fine sand sticking to the wet feet and rubbing away the skin, and in some cases these were beginning to fester. Many horses had brushed on the fetlock joints, which indicates the necessity for putting indiarubber brushing-rings on horses with close action behind when on active service, or, at any rate, of bandaging the hind fetlocks.

The return march from Imatra began at 7 A.M., as it was intended to pass through Viborg to Khoomel, 54 miles. The weather was unfavourable, fine cold rain changing to snow on the hills. The pace was a sharp trot, in order to arrive at the halting place by daylight. Viborg was reached at 5 P.M., when a delay of two hours was caused by the Officers of the garrison, who wished to entertain their comrades in arms. It was nearly 8 before Viborg was left behind. A thick fog covered everything. Dusk came on, and in the woods it was completely dark. It was necessary to turn from the path on to the

¹ Two-thirds of a mile.

² More correctly the stud-breds.—TRANS.

new coast road, but the inscriptions in Finnish on the mile-posts were unintelligible to the advanced Cossacks; the fixing of bits of paper written in pencil was a slow process, and useless in the dark, when even the posts themselves were hardly visible among the tree trunks, so orders were given that at every clearing huge arrows should be drawn on the sand to show the way. Even if it was too dark to see the road itself, it was not difficult, by the aid of a lantern, to find the mark, knowing beforehand where the patrols would have made it.

Thanks to this precaution, the detachment reached its halting place at 10.30 P.M. The remaining marches to Teryouk, 46½ miles in ten hours, and St. Petersburg, 38 miles, were made without any difficulty, the horses and men being by this time in thoroughly hard condition.

The detachment was met in St. Petersburg by the General Commanding the division, and ranked past him in single file. The gay, lively appearance of the men and horses, though they were a little fine drawn, left nothing to be desired. This ride, 264 miles in five days without a day's halt, across mountains, in unfavourable weather, was a severe strain on the powers of man and horse. Owing, however, to the careful attention paid to girths, numnahs, and loads, the horses had no sore backs. If after the day's march any lumps appeared on the backs they were immediately dressed with salt water, a simple, well-known remedy, which caused the lumps to disappear by the morning.

The experiences of this ride seem to point to the advisability of doing the march as rapidly as possible, so as to give longer rest to the horses. Shortening the halts no doubt tires the men more, but gives them the advantage of daylight to make themselves and their horses comfortable for the night.

In dry, sunny weather, such as prevailed for the second and sixth marches, it is a good thing to give the horses, every 8 or 10 miles, a few mouthfuls of water, or at any rate to sponge out their nostrils with a damp rag.

The Laktin Bay was crossed in a ferry boat. At first the horses were placed head to head across the boat, but this unaccustomed position disturbed them much, and they would not stand quiet; so the last sections were placed by threes, heads to the front, and in this position they took no notice of their surroundings, and were quite quiet.

Fourteen Officers took part in the ride, of whom half rode Anglo-Don and Anglo-Arab horses from the studs, the others steppe horses, and it must be said, in justice to the former, that they showed more energy and life than the latter. The steppe horses at the end of a march, though they went on and increased their pace without much urging, yet were dull and heavy on the bit.

The greater daintiness in the matter of forage, &c., of the stud-bred horses must not be counted against them, as it is easily explained by their being stable-reared, and, moreover, accustomed to the greater care and better food which Officers' horses always receive.

THE DISTANCE RIDE FROM BERLIN TO VIENNA.

Translated from the "Militär Wochenblatt," by Lieut. C. H. SCHLESINGER, Ind.S.C.

[The author of this article, Lieut.-General v. Rosenberg, is the Inspector of the 2nd Cavalry Inspection in Germany, and is a member of the Cavalry Commission. He is a cavalry leader, well known and highly thought of.—L. A. H.]

On meeting to consider the above-mentioned distance ride, the general opinion of the German committee was that their Officers would be beaten by their Austrian comrades. Some were of opinion that the prizes should be separated, so as to avoid an international struggle. The suggestion, however, was overruled. Foreign competition was not to be shunned, as it would only thus be possible to arrive at a due recognition of one's own defects. This is about the same principle according to which we permit the best English steeplechase jockeys to ride. The principle has proved itself a very good one; the standard of efficiency of our gentlemen riders would certainly not have reached so high a degree had we avoided competing with the best, and only kept among ourselves.

The reason why we were beaten generally, especially as regards the number of riders that came home, may be approximately assumed as follows:—The Hungarian horses (of which a particularly large number arrived) are brought up much more hardened than our Prussian horses. The cause for this will chiefly be found in our horse dealing. Aged horses are not to be found at all among our breeders; what has not been purchased by the Remount Committee, or by Count Lehndorf, is, at the age of three years, virtually dragged out of the breeders' stables by the dealers. The better the horse's coat, feeding, in fact, generally speaking, his exterior appearance, the higher the price he fetches; and the breeders are hardly to be blamed if they, in breeding and rearing, take chiefly this point into consideration. They endeavour to obtain through well-shaped stallions and mares a result in exterior appearance as faultless as possible, and pamper the same in their stables. In this manner they most cheaply attain their object, for no dealer pays for what a horse can do. The horses of the Austrian Officers which arrived fit are nearly, without exception, all well-bred, light, and small animals, by no means perfect in shape. They would probably unfavourably compare in this respect, in the opinion

of an expert, with the horses ridden by the Germans. The reason that nevertheless these horses proved victorious is just that their more hardy bringing up since decades of years has hardened their sinews, muscles, stomach, &c., to a greater extent than is the case with us. This very evident circumstance might serve our horse breeders, especially those in Prussia, as a hint that if the reputation of the Prussian horse is to be retained in future, their rearing in this respect must be improved, *i.e.*, give more food, and harden the horses. Should this even now be attended to in future, many years must nevertheless elapse before the harm already done is repaired. Another reason for our defeat will be found in the weight of the riders. The Austrians have certainly selected with considerable intelligence those riders who combined a light weight with enduring powers and energy. That weight will tell on such a ride is surely true. Again, we may say that the Austrians, from the very commencement, were regardless of either horse or person. They made up their minds to ride as hard as they could, and allow their horses as little rest as possible; those which could not hold out remained simply on the road. With us the general opinion was that the ride could not well be accomplished under four days, and that the horse should on the first day above all be spared. Therefore our men rested so long the first night that they only on meeting their comrades made the discovery that they had debarred themselves from competing for the highest prizes. So they, as a rule, gave up the struggle, and simply just endeavoured to come in. A further, though hardly a weighty, reason for our defeat may be found in the state of the roads near Iglau, which, according to the Austrians, was very bad indeed. They found it very convenient to pass this part of the road at the commencement, and by day. I have heard opinions to the effect that with a wearied horse, or by night, this distance could not be passed otherwise than at a walk. It may in addition be taken as singularly unfortunate that just at the time that our riders arrived here an exceptionally thick fog is said to have set in.

For the usefulness of our horses for military purposes (and I confine myself here to these alone), horse dealing has generally its great disadvantages. In former days, when I joined, an Officer was praised if he saved his charger and was able to sell him after five years at a high price. He was praised for his knowledge of treatment, stable management, &c., especially by senior Officers. In my opinion the value of a charger depends on something quite different. An Officer, especially a junior, should in the first instance, under supervision, be able to well train his charger, and then get a good deal of work out of him, and be permitted to do so. He should not only be permitted but even encouraged to take part in long and heavy hunting, and especially on duty as orderly Officer, commander of a patrol, &c., should he be required to make good use of his charger. In this manner he will render useful immediate services, and above all acquire in the best way possible a practical knowledge of horsemanship. Whether an Officer, when the time is up, receives a high or a low price for the horse is far and away a very secondary consideration.

Equally disadvantageous as horse dealing acts in this respect, is its influence generally on the breeding. As I have already mentioned, the distance ride proved that almost without exception small, slight, and well-bred horses were used, which, from a dealer's point of view, would, as a rule, have fetched low prices. Had an Officer found anywhere a big heavy horse capable of considerable performance in this respect, he would undoubtedly, even if the horse had been an expensive one, used him for it. The horses which we saw arriving here were generally such which a breeder has no desire to rear, and that entirely because it does not pay him sufficiently well to do so.

The value of this distance ride with reference to our performances in war has been the subject of frequent and favourable discussion, and I have heard many an opinion which does not appear to me correct. In the first instance, I would like to point out that 360 miles will never be covered in war in so short a time. If during the last war patrols accomplished as much as 130 miles, it was only due to the rare occurrence that the enemy had no cavalry. Should he still possess any, such rides by patrols are hardly possible. I, however, am by no means opposed to such distance rides; they are always sure to be instructive, and strengthen sinew, muscle, and energy. The only objection is the expense, for, if we wish to be honest, we must admit that very many Officers have lost one if not two horses on this ride, and not only on the ride itself but also earlier, even before the entry, the expenses incurred in training were considerable. Moreover, these rides had better adopt a different character than simply that of a race. On more extended reconnaissances, it will always be requisite that an Officer in order to proceed quicker must still be able to ride his horse, not however to drag his horse along on foot, so that he really progresses slower than if he were without. On this occasion the method of dragging the horse past the winning-post was quite justified by the desire of obtaining a prize. Many opinions have expressed themselves to the effect that in order to save the horses the distance should be cut down to a half or a third. Now I believe that, as long as the ride retains its present character, there will be no difference in the loss of horses. For shorter distances would after all be covered at such a pace that, if anything, more horses would succumb. I might even say that in a race of 850 miles less horses would be injured than in a race of 85 miles length.

Although I have been much interested in this ride. I must confess that it is hardly the best preparation for our military purposes, which should be looked for in another direction.

The greatest efforts will invariably be demanded on the occasion of a reconnaissance, or in the case of an orderly. An Officer on reconnaissance will, however, rarely be able to make much use of a high road during the principal stages of his duty. If he proceeds along them, he is sure to meet with the enemy, but he will be fired on at a distance from 800 to 1,000 yards, and only know that the enemy is there and no more. If he wishes to send in more detailed

information, he will have to ride across country so as to get at the enemy's flank, for he will only be able to observe anything from that direction. For this purpose it is necessary that he should be mounted on a horse which will carry him safely and quickly for several miles across the most difficult country. The leader of a cavalry detachment, whether large or small, is similarly situated. If he knows that neither he nor his subordinates are able to get along over even only difficult ground, this alone will be sufficient to prevent his advancing at all against the enemy. For this purpose the horse that can go a distance is alone not sufficient; we have seen that for a distance ride even cart-horses were used, which travel very well along the roads, but are of very little use across country. The horse which is required must have been accustomed in peace time, by being hunted, to carry his rider over intricate ground. My opinion, therefore, is that, without condemning distance rides, we should lay greater stress on hunting, and especially on such hunts as were organized in Hanover under General von Krosigk. What this General accomplished in this respect with the Service horses had, up to the time, been unknown to us, and he had produced something eminently useful for our purposes. The money that is lost on such distance rides will, in my opinion, repay itself better in war, if it is expended in hunting. I think, without presuming, that I may give an opinion. In the days of my youth, when both railways and high roads were scarce, it used to be much more the custom than now to ride long distances over frosty country roads to a ball, returning the same night. I remember, shortly before my betrothal, covering a distance of 55 miles from Zduny to Neumark (between Breslau and Liegnitz) both there and back under above conditions of road; nevertheless I am sure that for purposes of war I learnt more whilst out hunting in later years.

Still, the performances of all who arrived at the winning post were unexpectedly brilliant. He who has covered 85 German miles in 100 hours may well be proud. Only those who have executed a similar ride should venture to give an opinion. Those who, in this respect, are without experience, should accept facts, but forbear from expressing an unfavourable judgment on a late arrival. If Mr. v. Reitzenstein, as appears now, without doubt, made a detour of 7 German miles, and, therefore, covered 92, i.e., 391 miles in 73 hours and 6 minutes, we can only be amazed at his performance, and hardly judge it. It may be as well to mention that the impression made by the arrival of the Austrian Officers on all who were present at the Custom House was really overpowering and most imposing. The horses throughout were surprisingly fresh, and were only surpassed in this respect by their riders; none of the gentlemen showed a sign of fatigue. Everybody was elated on seeing the slight, smart, elastic figures, with their handsome young faces beaming with delight. I feel sure that all feelings of ill-will and envy, if they existed in anybody's mind, were chased away by the appearance of these gentlemen. Involuntarily the thought arose in one's mind that, if the Austrian cavalry can be judged by these Officers, it must have arrived, in

respect of horsemanship, endurance, and energy, at a very high degree of excellence, and probably be the best in the world.

In Austria there are, compared with us, few riding schools; the training altogether is not based on the riding school, but on the open ground, and this will perhaps be referred to in a second similar essay. In the meantime, a hearty cheer for all Officers, without exception, Austrians and Germans, who have passed the winning post!—
V. ROSENBERG.

EXPERIMENTAL ALUMINIUM HORSE-SHOES.

Translated from the "Invalide Russe" by Captain E. LAMBERT, R.H.A.

IN the Finland Dragoons an experiment has been made with aluminium horse-shoes. A few horses were chosen and shod with one aluminium shoe and three iron shoes, the former being on the fore foot in some cases, and on the hind in others. Some of the horses were remounts working only in the school, and others fully trained horses. The experiments lasted six weeks, and showed that the aluminium shoes lasted longer and preserved the foot better than the iron ones. No aluminium shoes broke, and they were used over again for re-shoeing. The horses were worked over hard and very stony ground. It had been feared that the aluminium shoes would suffer from contact with urine, and that the shoeing would suffer from the acid products, but this was not found to be the case. To try this fully, pieces of the metal were kept a whole month in urine, but no chemical change took place in them. A very trifling loss of weight was observed.

The aluminium shoes are only one-third to one-fourth the weight of iron shoes. Their cost is certainly greater, but this is to some extent compensated for by the facts that very little charcoal is required in shoeing, that there is no loss in weight, and that the value of the old metal is the same as that of fresh. In making the shoes some skill is required, as the forging must be done at a rather low but exactly regulated temperature. This also makes the operation a rather lengthy one.

Taking into consideration the importance of light shoes, especially for horses doing fast work, and the advantage of being able to carry a larger number of spare shoes on a campaign without increasing the load of the wagons, and, lastly, the probability of a fall in the price of aluminium, it is safe to predict the general introduction in the future of this metal for the shoeing of cavalry and artillery horses.

REGULATIONS FOR MOBILIZATION FOR HOME DEFENCE (REGULAR FORCES).

THE Regulations for this most important work have recently been issued with a Special Army Order. Nominally, the audience addressed by an Army Order is very large indeed; not unfrequently the audience is limited in practice to a select few. It is, however, desirable that, in this instance, at all events, as many minds as possible should be induced to study the subject of the Special Army Order, and to understand the Regulations, for it is on the thorough co-operation of numbers of individuals that depends the satisfactory working of the machine, if ever it be called into play; and for the work, every one who will have to take part in it should be prepared beforehand.

Moreover, mobilization for home defence is not merely a military matter affecting the profession only; it affects, in many ways, the civil population also, and, in fact, demands their co-operation. It would be very difficult for the military authorities to provide for the collecting, transporting, equipping, billeting, and feeding of the Reservists in Great Britain and Ireland, unless not only the civil authorities, but civilians all over the country, gave them their cordial aid and assistance; without aid and assistance rendered in this spirit, fatal friction and delay must ensue. Further, it is not impossible that, notwithstanding the immense amount of labour and care bestowed on drawing up the Regulations, some little error may have crept into them, or some rather round-about method in lieu of a shorter one introduced, here and there, into them; and if this be the case, then it is only necessary for the existence of the flaws to be made known in order that they may be remedied. These Regulations are administrative rather than disciplinary, they are as much national as military, and it is with the view of not letting them be buried out of sight in volumes of Army Orders, but of giving them as much general publicity as possible, that permission has been obtained from the Controller of Her Majesty's Stationery Office for the insertion of the Regulations, *in extenso*, in the pages of the Journal of the Royal United Service Institution. It is suggested that "Mobilization by the Regulations" would be by no means a useless, uninteresting, or unpractical form of *kriegs-spiel*, to while away an evening in each district during the winter season.—L. A. H.

| Issued with Special Army Order, dated 10th August, 1892.

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REGULATIONS

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FOR

MOBILIZATION

FOR

HOME DEFENCE

(REGULAR FORCES).

INSERTED BY PERMISSION OF THE CONTROLLER OF HER MAJESTY'S
STATIONERY OFFICE.

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REGULATIONS FOR MOBILIZATION FOR HOME DEFENCE

(REGULAR FORCES).

PREAMBLE.

1. Before entering upon the detailed regulations for the mobilization of the Regular troops for home defence in Great Britain and Ireland, it will be well to explain briefly the general principles on which they are framed.

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I.—Field Army.

2. Owing to the exigencies of service abroad, the troops of the British Army cannot be grouped together in fighting formations in the same manner as are those in other armies. It is not possible to lay down that an Army-Corps shall consist of certain definite regiments, batteries, departmental units and the like, because if this were done, it would be found, when this Army-Corps had to be constituted on mobilization, that a large proportion of its component units were abroad. The organization of the fighting formations has, therefore, to be effected on the basis of stations and not of units; that is to say, that a given formation, a Brigade for instance, will not be made up of definite units, but of the units quartered at definite stations.

3. On mobilization Reservists will join at the places shown in the table in Appendix D, which are, except in the cases of specially-circumstanced corps, the depôts of the regiments or corps to which they belong. The Reservists will receive their clothing and necessaries at these places, and will be posted to the units in which they are to serve by the Officer Commanding Reservists,* who, after seeing them clothed and their accounts settled up, will despatch them to their units, except in cases where both battalions are abroad (*vide* paragraph 48).

4. The number of Reservists required by each unit is ascertained from periodical returns furnished by Officers Com-

* A schedule of these Officers and explanations of various terms used in these Regulations will be found in the Appendices.

manding units. Any men serving with the units who are unfit for service will be sent to the depôts, leaving their arms and accoutrements with the unit. Any Reservists who are not immediately required by units will remain at the depôts.

5. The Reservists on joining their units from the depôts will receive their arms and accoutrements, which will be drawn by Officers Commanding units from the mobilization storehouses at the stations of the units; and will also receive the special articles of clothing and necessities issued on mobilization (*vide* paragraph 11).

6. The clothing and necessities required by Reservists on joining will be despatched direct to depôts and other places mentioned in the table in Appendix D, by the Director of Army Clothing, Pimlico. Those special articles of clothing which are required on mobilization by men serving, and which they are not in possession of during peace, will be forwarded from Pimlico to Officers Commanding units (*vide* paragraph 11).

7. Any Reservists who may remain at the depôts as not being immediately required by units, as also all the men sent from units to depôts as being unfit, from youth or other causes, for field service will receive their arms and accoutrements at the depôts. For this purpose a supply of arms and accoutrements is kept at Infantry Depôts in charge of the Commanding Officers, and at Garrison Artillery Depôts in charge of the Ordnance Store Department.

8. In any case in which the Reservists of a unit are not sufficient to bring it up to war establishment, the deficiency will be made up, as far as possible, by drawing on the men at the depôt who are fit for service.

9. In addition to the personal outfit of the men, the unit itself has to be furnished with its own war equipment of the various articles required to enable it to take and keep the field as a fighting body. The additional stores required for war are divided into classes, and their storage in peace time and issue on mobilization, depend upon the class to which they belong.

10. The classes into which the war outfit of the troops of the Field Army is divided are three in number, namely:—

- (1.) The *Personal Outfit* of the soldier, which consists of his clothing and necessities, furnished by the Army Clothing Department; and his personal equipment, viz., arms and accoutrements, which are furnished by the Ordnance Store Department.

- (2.) The *First Regimental Equipment* of the unit, which consists of cooking utensils, butchery implements, harness and saddlery, entrenching tools, &c., and the vehicles in which these are carried. A complete list of what constitutes first regimental equipment is given in the Equipment Regulations.
- (3.) The *Second Regimental Equipment* of the unit, which consists of the mobilization supply of ammunition, the vehicles in which this is carried, supply wagons, ambulance wagons, and water carts. A complete list of what constitutes second regimental equipment is given in the Equipment Regulations.

11. *Personal Outfit*.—The clothing and necessities for the Reservists of each regiment or corps are kept at the Army Clothing Department, Pimlico, and will, on mobilization, be despatched by the Director of Army Clothing to the places mentioned in the table in Appendix D, so as to arrive at these places before the Reservists join. The amount of clothing and necessities to be sent will be based on the total number of the Reservists of the regiment or corps concerned, joining at each station, and demands will not be required. Those special articles of clothing and necessities (flannel belts, pots of grease, housewives, field-dressings, clasp-knives and lanyards) which are required on mobilization, but do not form part of the soldier's peace kit, will be forwarded from Pimlico to Officers Commanding units, the numbers being calculated in each case on the war establishment of the unit.

Thus a Reservist on joining will receive the ordinary peace kit of clothing and necessities at the dépôt at which he joins. The special articles required for field service will be issued to him when he reaches his unit.

For those Reservists that are not sent to units, and for any other men remaining at, or sent to the dépôt, the special articles of clothing for field service will be demanded by the Officer Commanding the dépôt, from the Army Clothing Department.

The arms and accoutrements for the difference between the peace and war establishment of each unit are kept at the place of mobilization of the unit in Ordnance Store Department charge.

12. *First Regimental Equipment*.—This equipment is kept at the place of mobilization of each unit in Ordnance Store charge.

13. *Second Regimental Equipment*.—This equipment is kept in Ordnance Store charge at selected places, shown for each unit in the Mobilization Tables.

14. *Medical and Veterinary Stores.*—In addition to the above there are a few articles, viz., certain medical and veterinary stores which are held by the departments concerned, and issued on mobilization to Medical and Veterinary Officers. The details of these are given in the Medical and Veterinary Regulations.

15. *Horses.*—The horses required to complete units on mobilization will be collected at fixed horse-centres by the Inspector-General of Remounts, and will be sent for by each unit under orders from him.

Procedure on Mobilization for Units in the Field Army.

16. In the preceding paragraphs the system under which each unit is placed on a war establishment of men is explained. The personal and first regimental equipment will be drawn from the Ordnance Store Department at the place of mobilization. The horses required by the unit will be sent for by the Commanding Officer, who will despatch a party to fetch them from the centre indicated in the Mobilization Tables on receipt of an intimation from the Inspector-General of Remounts that the horses are ready. On the return of this party with the horses, the harness and saddlery will at once be fitted. A party with the requisite number of horses fitted with harness, will then be sent to the place where the second regimental equipment is kept to draw it from the Ordnance Store Department, and convey it to the concentration place of the unit. The unit itself will, after the despatch of this party, proceed to its place of concentration under orders from the General Officer Commanding the District. At the concentration place it will be joined by the party which has drawn the second regimental equipment, and its mobilization will be completed. On leaving its peace station the unit comes under the orders of the Officer Commanding the Brigade, or other formation to which it is allotted in the Mobilization Tables.

17. In the Artillery the mobilization of the unit will proceed as in the preceding paragraph, with the exception that there is no second regimental equipment for Artillery batteries, the complete war equipment being at all times in charge of the battery (*vide* Equipment Regulations, Part 2, Section XI., paragraph 15, *et seq.*). Batteries will not therefore have to send parties to the second equipment storehouses, but will leave their peace stations complete for the place of concentration.

18. The above are the general rules guiding the mobilization arrangements for the Regular Troops in the Field Army. The special instructions required for those units which have to be constituted on mobilization are given on paragraphs 85, *et seq.*

II.—Garrisons.

19. The units for garrisons are detailed by stations in the same way as for the Field Army. Owing, however, to their more stationary condition, and also to the fact that they have the resources of large towns at their disposal, their equipment on mobilization will be of a more limited nature than that assigned for units in the Field Army. It will consist solely of the personal outfit of the soldier, of ammunition, and of the barrack or camp equipment required, according as the unit is quartered in barracks or encamped.

20. A certain number of military vehicles and of tools for entrenching purposes are assigned to each garrison, and these, when mobilization is ordered, will be at the disposal of the General Officer Commanding the District, and will be allotted by him in accordance with his detailed schemes of defence. Any further transport or tools that may be required will be obtained by him from civil sources. The personal outfit is kept in the same way as for troops of the Field Army. The ammunition, barrack or camp equipment, vehicles, and tools are kept at the places which the units are allotted to garrison.

Procedure on Mobilization for Units allotted to Garrisons.

21. The procedure on mobilization for units allotted to garrisons will be the same as regards the Reservists joining, and their being equipped with their personal outfit, as for units of the Field Army. In almost all cases, regular units allotted to garrisons are quartered in the fortresses to which they are allotted, and will draw from local stores any camp or barrack equipment required by them on mobilization. A unit which has to join a garrison from elsewhere, will move to it as soon as it is complete in numbers and in personal outfit, under orders which will be given to it by the General Officer Commanding the District. On arrival there it will draw its barrack or camp equipment, according to circumstances, and its mobilization will then be completed. (*Vide* Appendix F.

III.—Unallotted Units.

22. Besides the units allotted to the Field Army and to garrisons on mobilization, a certain number of units are kept in hand and not assigned definitely to any particular duties; these are termed unallotted units, and a list of them is given in Appendix G.

Procedure on Mobilization for unallotted Units.

23. On mobilization unallotted units will be brought up to war establishment of men in the same way as other units. Cavalry and Artillery units will receive horses for the difference between peace and war establishment, excluding those required for regimental transport purposes. Cavalry will draw saddlery for these additional horses, but with this exception, no unallotted units will receive any regimental mobilization equipment.

24. The personal equipment, and, in the case of Cavalry, the saddlery, will be kept by the Ordnance Store Department at the peace station of the unit in the same way as for units allotted to the Field Army or to garrisons.

25. Any extra barrack or camp equipment required by unallotted units to meet their increased strength will be drawn from local stores at their stations.

IV.—Routes.

26. Routes will be required on mobilization for the movement of men unfit for service from the units to depôts; for the movement of Reservists from depôts to units; movement of horse-collecting parties from units to remount centres, and back with the horses; movement of parties for second regimental equipment from units to storehouses, and thence, with the equipment, to rejoin their unit at its concentration place; movement of units from their places of mobilization to their places of concentration. There will be also a number of miscellaneous movements, such as parties detailed for Mounted Infantry from their units to Aldershot and the Curragh, and parties of military police and others detailed to staff units.

Special instructions for the preparation and issue of these routes will be issued to General Officers Commanding Districts.

DETAILED REGULATIONS.

PREPARATORY MEASURES DURING PEACE.

I.—Officers and Men.

27. The Adjutant-General will keep Officers Commanding units informed, through General Officers Commanding Districts, of the numbers of Officers and men that they will be required to furnish, on mobilization, for the following services :—

Army-Corps, Divisional, and Brigade Staffs, Remount Depot, Sick Horse Depot, Mounted Infantry, Farriers, and Military Police.

28. Every Officer Commanding a unit will render, on the 15th June and 15th December of each year, to the Officer Commanding the Reservists of his unit, a return showing the numbers of each rank, exclusive of Officers, required to complete the unit to war establishment for active service at home, after deducting men—

(a.) Who are not fit for service for home defence (see paragraph 49).

(b.) Who are required for the special services named in paragraph 27.

In the case of Royal Engineer units this return will be sent to the Deputy Adjutant-General, Royal Engineers, War Office, and in the case of both Royal Engineers and Army Service Corps it will show the number of each trade required.

29. In the case of a unit which is detailed to find a machine-gun section, the number of men required for it must be added to

the war establishment of the unit, in order that Reservists may be provided to meet this requirement.

30. Separate lists of those Cavalry Reservists who are artificers, or who have been trained as farriers at the Veterinary School, Aldershot, will be kept by the Commandant, Cavalry Dépôt, Canterbury, who will detail them for service with the units requiring them on mobilization.

II.—Horses.

31. The provision of horses on mobilization will be carried out by the Inspector-General of Remounts.

32. The remount centres from which units will draw their horses on mobilization are shown in the Mobilization Tables.

33. The Officer Commanding a unit will keep always detailed the party to fetch its horses on mobilization. The strength of this party will be based on the average requirements of the unit in horses, at the rate of one man to every two horses, with a proper proportion of Officers, non-commissioned officers and shoeing-smiths, when possible. Men accustomed to horses should be selected as far as possible.

III.—Equipment, Clothing, &c.

34. As already stated, the war outfit of the troops of the Field Army is divided into three classes, namely—Personal Outfit, First Regimental Equipment, and Second Regimental Equipment. The clothing and necessaries which form part of the personal outfit have been dealt with sufficiently in paragraph 11.

35. Printed lists of the ordnance stores required by each unit on mobilization, arranged in accordance with this classification, are issued to Officers Commanding units. Copies of these lists are kept with the stores for each unit, as are also demands for the stores ready filled in, which latter, after signature by the Officers concerned, will be passed as vouchers (*vide* Appendix K).

36. Soldiers already serving, when mobilized for service at home, may be assumed to be complete in personal outfit as issued for peace, and will require in addition only such special articles as are issued solely for active service, as detailed in Clothing and Equipment Regulations.

37. Reservists will in all cases require a complete set of personal outfit.

38. The mobilization stores required as first and second regimental equipment are kept separate for each unit in Ordnance Store Department charge; the first at the place of mobilization of the unit, and the second at a selected place, as detailed for each unit in the Mobilization Tables.

39. The barrack or camp equipment required for a unit allotted to a garrison, is stored at the garrison to which it is allotted.

40. Grocery panniers, empty, form part of the first regimental equipment of units, and, as such, are held by the Ordnance Store Department at the stations laid down for each unit in the Mobilization Tables. The groceries for one day's ration per man to fill the panniers will, on mobilization, be provided locally by the Commanding Officer of each unit.

41. The medical comfort panniers which form part of the first regimental equipment of Bearer Companies and Field Hospitals are kept at the Reserve Supply Depot, Woolwich, and on mobilization will be despatched by the Officer in charge of the Reserve Supply Depot, packed, to the Officer Commanding each unit concerned, at its place of mobilization.

IV.—Documents.

42. All Officers in charge of documents to be issued on mobilization, will keep them filled in up to date, as far as practicable.

43. Army Forms, as scheduled below, are to be kept in charge of the Officers named.

Officer.	Description of Form.	Number to be kept in stock.
Officers Commanding Reservists.	Posters calling out Reservists (D 427) and (D 451).	No. of places for which posters would be required + 10 per cent.
Officers paying Reservists.	{ Army Form (D 463) (Notice to Reservists to join).	No. of Reservists paid + 20 per cent.
	{ Army Form (D 457) envelope for addressing Reservists.	No. of Reservists paid + 20 per cent.
	{ Railway and Passage Warrants..	No. of Reservists paid + 20 per cent.

ORDERS TO MOBILIZE.

44. The order for mobilization will be issued from Head-Quarters to General Officers Commanding Districts, and direct to Officers Commanding Reservists.

45. General Officers Commanding Districts, on receipt of the order from the Head-Quarters, will immediately inform Officers commanding units, and will at once take steps to secure the return to the head-quarters of their units of all Officers and men on leave, or on detachment, or on other duties, as soon as they can be spared.

V.—Procedure to be followed on receipt of Orders to Mobilize.

46. As already explained, the general rule is that on mobilization Reservists will join the dépôt of the regiment or corps to which they belong; but to meet cases of particular corps the places where Reservists are to join are given in detail in Appendix D.

47. Reservists of the Foot Guards will report themselves at the Regimental Head-Quarters, Horse Guards, Whitehall, S.W., and will be posted to battalions, and clothed and equipped, under arrangements to be made by the Officer Commanding each regiment.

48. Reservists of Infantry regiments with both battalions abroad will join the dépôts of their regiments, and Reservists of Cavalry regiments abroad will join at Canterbury. They will receive their clothing and necessities at these dépôts. Their further movements will be directed from Head-Quarters.

VI.—Fitness for Service for Home Defence.

49. All soldiers will be considered fit for service for home defence who—

- (1.) Are in the opinion of the Commanding Officer capable of bearing arms, and
- (2.) Have completed a recruit's course of musketry (in the cases of men to whom this is applicable).

In the Army Service Corps and Departmental Corps the first condition only is requisite.

In the Royal Engineers, Sappers, in addition to the above qualifications, must have received instruction in field works or equivalent Engineer duties, or possess other special qualifications.

VII.—Duties of Officers Commanding Units,* on receipt of Orders to Mobilize.

On receipt of the order to mobilize, the Officer Commanding a unit will—

50. Inform all Officers and soldiers on leave.

51. Arrange for a medical inspection of both Officers and soldiers.

52. Telegraph to the Military Secretary the number of Officers of each rank required to complete to war establishment, after deducting those unfit for service, or not available through being detailed for other duties.

53. In case any men are on command and cannot be spared to rejoin their unit, telegraph to Officer Commanding Reservists to fill their places with Reservists.

54. Arrange for receiving, accommodating (in barracks, tents, hired buildings or billets), equipping, and arming Reservists as they arrive from the dépôt; and also for the accommodation of detachments called in from out-stations.

55. Draw from the Ordnance Store Department at the station, the arms and accoutrements for the Reservists, and the mobilization stores for the first regimental equipment of the unit.

56. If the unit is detailed to furnish a machine-gun section, draw the machine-guns and their equipment, if not already in charge of the unit.

57. Arrange for the accommodation in hired stabling, or by picketing, of the horses for which there is not stabling in barracks.

58. On receipt of instructions from the Inspector-General of Remounts, send a collecting party at the rate of one man to every

* In the Foot Guards these duties will be carried out by, or under the orders of, the Officers Commanding regiments.

two horses, with a proper proportion of Officers, non-commissioned officers and shoeing-smiths, when practicable, with head-collars, head-ropes, T-bits and nosebags to the remount centre indicated in the Mobilization Tables, to receive the horses and return with them to the unit. This party will take with them any unfit horses of the unit that can travel, and hand them over to the Remount Officer, with Army Form B 88 and Veterinary History Sheets. Horses unfit to travel will be disposed of locally, or destroyed.

59. Arrange for the harness and saddlery being fitted to the horses as soon as they are received.

60. As soon as sufficient harness is fitted, send a party under proper charge, with the requisite number of horses, to the place where the second regimental equipment is stored to draw it, and rejoin the unit at the place of concentration.

61. Send to the dépôt all Officers and men unfit for service who can travel.

62. Send to their homes, or to the place of residence they may select in the United Kingdom, all soldiers' wives and families, except those of men proceeding to the dépôt, who will accompany the men.

63. As soon as the unit is ready to proceed to its place of concentration, telegraph the fact to the General Officer Commanding the District.

VIII.—Duties of Officers Commanding Reservists on receipt of Orders to Mobilize.

On receipt of the order to mobilize, an Officer Commanding Reservists will—

64. Arrange with municipal, parochial, and police authorities and postmasters for causing placards (Army Forms D 427, or D 451) to be posted without delay on the doors of town-halls, churches and chapels, police barracks, on the gates of military barracks, and in the windows of post offices.

65. Inform all Officers and soldiers under his command who are on leave.

66. Arrange for a medical inspection of Officers and soldiers serving at the depôt, or under his command.

67. Arrange for the receipt and care of the clothing and necessaries for Reservists, which will be sent from Pimlico.

68. Arrange for receiving, accommodating (in barracks, hired buildings, tents or billets), medically inspecting and clothing Reservists as they join.

69. See that Reservists on joining are at once settled with, up to the day preceding joining, for their Reserve pay and Reserve deferred pay, minus any forfeitures, stoppages or advances.

70. Take the necessary steps to record the absence, without leave, of such Reservists as fail to report themselves (*see* Sections 19 and 24 (3) of the Reserve Forces Act, 1882).

71. Ascertain from the Reservists joining whether they are married or not, or widowers with children. In the case of a man stating that he is married or a widower with children, although no entry appears on his documents, require him to make a declaration to that effect, and pass this declaration to the Officer paying the Reservist (Army Form D 418).

72. Arrange for accommodating in barracks, hired buildings, tents, or billets, the men and soldiers' families sent to the depôt from the units.

73. If the Reservists are not sufficient to bring a unit up to war establishment, the Officer Commanding the depôt will make up the deficiency, as far as possible, by sending to the unit all men at the depôt fit for service who are not absolutely required there.

74. Reservists will be sent to units from the depôts or other places where they join, as soon as they are clothed and supplied with necessaries. They should, as a rule, be sent in parties of from 50 to 100 strong, but the Officer Commanding Reservists is left full discretion as to the strength of a party, which must depend on the rate at which Reservists join, and other considerations. A party may be sent under a non-commissioned officer, if no Officer is available for the duty.

IX.—Duties of Officers paying Reservists on receipt of Orders to Mobilize.

On receipt of the order to mobilize, an Officer paying Reservists will—

75. Complete and send in one envelope (Army Form D 457) by post to each Reservist the following documents—

*(a.) Notice (Army Form D 463, signed by him for the Officer Commanding Reservists).

(b.) Railway and passage warrants as required.

*(c.) Postal Order for 3s.

76. The railway or passage warrants are to be made out for the quickest route.

77. On the despatch of a party of Reservists to join a unit, send by the conducting Officer, if there is one, and if not, by post, the following documents, properly completed, to the Officer Commanding the unit concerned :—

(d.) Nominal Roll of the Party.

(e.) Army Form O 1811 for each Reservist.

(f.) The documents of each Reservist, when they are in the Paying Officer's possession.

78. In the Royal Engineers the documents referred to in paragraph 78 (f) will be sent by the Assistant Superintendent, Royal Engineers Records, Chatham, and, in the Army Service Corps the documents referred to in paragraph 78 (d), (e), and (f) will be sent by the Officer in charge of Army Service Corps Records, Woolwich Dockyard.

79. Cavalry Reservists who have been trained as farriers at the Veterinary School, Aldershot, or who are artificers, will, after receiving their clothing and necessities at Canterbury, be sent to the corps to which they are detailed (*see* paragraph 30).

80. Reservists of the Medical Staff Corps will be ordered to report themselves to the Senior Medical Officer at the station where they join.

* It is intended to issue a special Army Form combining these two documents in one.

X.—Command on Mobilization.

81. Units allotted to the Field Army will remain under the General Officer Commanding the district in which they are, until they leave their place of mobilization *en route* to their place of concentration. On leaving their place of mobilization they will at once be considered as belonging to the Field Army, and will come under the command of their respective Brigadiers or other General Officers.

82. Units allotted to garrisons will similarly pass under the command of the Officer Commanding the garrison to which they are allotted when they leave their peace stations for their garrisons.

83. Unallotted units will remain under the General Officer Commanding the District in which they are stationed.

UNITS TO BE FORMED ON MOBILIZATION.

84. The units to be formed on mobilization are—

Brigade, Divisional, and Corps Staffs.
Regimental Staffs of Corps Artillery and Corps Engineers.
Mounted Infantry.
Army Signallers.
Ammunition Columns.
Bearer Companies and Field Hospitals.
Remount Centres and Sick Horse Depôts.
Stationary and General Hospitals.
*Post Office Corps.**
*Military Police.**

85. *Brigade, Divisional, and Corps Staffs.*—The Officers to compose these Staffs are detailed by the Military Secretary; the non-commissioned officers and men are detailed by the Adjutant-General. The equipment, exclusive of transport, is kept in charge of the Ordnance Store Department at the places given in the Mobilization Tables. The General Officer of each Staff will detail one of his Staff to take over this equipment, and will issue his own orders as to the assembly of his Staff. The Officer detailed to take over the equipment will thus become an Accounting Officer. The transport (*i.e.*, the horses, wagons, and drivers) is provided by the Army Service Corps, and will join the Staff units at their respective places of mobilization, according to the detail laid down in Field Army Establishments (Home Defence).

86. *Regimental Staffs of Corps Artillery and Corps Engineers.*—The Officers to compose these Staffs are detailed by the Military Secretary, and the non-commissioned officers and men by the Deputy Adjutant-General, Royal Artillery, and Deputy Adjutant-General, Royal Engineers, respectively. The equipment, including transport, is kept by the Ordnance Store Department at the places given in the Mobilization Tables. The Officer Commanding each Staff will detail one of his Officers to take over this equipment as an Accounting Officer, and will issue his own orders for the assembly of his Staff. The horses will be provided by the Inspector-General of Remounts.

87. *Mounted Infantry.*—The Mounted Infantry to be formed on mobilization will consist of eight companies, and four machine-gun sections, *viz.*, six companies at Aldershot with three machine-gun sections, and two companies at the Curragh with one machine-gun section. They will be formed entirely from men serving, with the exception of the serjeant-farriers.

* The detachments of these corps are not treated as units, but form part of the various Staff units.

88. The artificers for the Mounted Infantry will be found from among the detachments detailed to compose it, with the exception of the serjeant-farriers, who will be furnished from Cavalry Reservists, and are detailed by the Officer Commanding Cavalry Depôt, Canterbury.

89. The peace composition of the companies of Mounted Infantry will remain unaltered on mobilization. Any vacancies in a division of a company which has to mobilize will be made up regimentally, the Officer Commanding the battalion concerned detailing the most suitable untrained men.

90. The Officer Commanding the Mounted Infantry will submit to Head-Quarters, on the 1st March and 1st September in each year, the detail of the eight companies and four machine-gun sections which he proposes should be those to mobilize for home defence. The Officers Commanding the battalions concerned will then be notified by the Adjutant-General, and on mobilization each battalion will send off its division complete in numbers, to the place of mobilization, without further orders.

91. The arms and accoutrements and first and second regimental equipments are kept in Ordnance Store charge at Aldershot and the Curragh; consequently men will bring with them from their battalions their clothing and necessities only. On mobilization the Officers Commanding battalions which have to furnish divisions, will despatch them to Aldershot and the Curragh, respectively. The Officer Commanding Cavalry Depôt, Canterbury, will direct the Reservists detailed as serjeant-farriers to proceed to these places after receiving their clothing and necessities. The outfitting, drawing of horses, &c., will then proceed as laid down in paragraph 16. The special articles of clothing required for Mounted Infantry will be despatched from Pimlico by the Army Clothing Department to Aldershot and the Curragh, at which places they will be exchanged for the articles of regimental clothing worn by the men. These will be returned by the Officer Commanding Mounted Infantry to the dépôts of the regiments.

92. *Post Office Corps.*—The detachments of this corps which form part of the Staff units of the various formations to which they are allotted, are provided by the 24th Middlesex Volunteer Rifle Corps. The clothing and necessities required by these detachments will be forwarded on mobilization by the Army Clothing Department to the Officer Commanding 24th Middlesex Volunteer Rifle Corps. The remainder of the personal equipment is kept at the Head-Quarters of the 24th Middlesex V.R.C., while the rest of their equipment is included in the equipment of the various Staff units, and will be drawn by the Accounting Officer of each Staff. After receiving their personal

equipment the various detachments will proceed direct to their concentration places, and will there join the Staffs to which they respectively belong.

93. *Ammunition Columns.*—A nucleus of one Warrant Officer and six men, Royal Artillery, has been formed for each Ammunition Column. To this nucleus is assigned the care and custody of all the equipment of the Ammunition Column. The places where the equipment for the different columns is kept are shown in the Mobilization Tables. The Officers for the columns are detailed by the Deputy Adjutant-General, Royal Artillery, from Officers serving. The non-commissioned officers and men are similarly detailed by the Officer Commanding Horse and Field Artillery, Woolwich, from men serving, and from Reservists of these branches of the Royal Artillery. On mobilization the Officers and men serving will proceed at once to the places of mobilization of their columns, and the equipment will be drawn from the Ordnance Store Department. The Reservists will be ordered to join at Woolwich, where they will receive their clothing and necessaries. They will then be sent to the place of mobilization. Horses will be drawn from the Remount Department, and the mobilization of the column will be completed in the same way as for other units.

94. *Military Police.*—The Military Mounted Police required on mobilization is formed from the Corps of Military Mounted Police and from the Cavalry Reservists serving in the Metropolitan Police. The personal outfit and saddlery for these latter (with the exception of clothing and necessaries which will follow the general rule and be supplied from the Army Clothing Department to the Cavalry Depot at Canterbury) is kept at Aldershot, and on mobilization the Officer Commanding the Cavalry Depot will send the Cavalry Reservists recalled from the Metropolitan Police to this place, after issuing to them their clothing and necessaries. At Aldershot they will receive their personal equipment, and the various detachments of Mounted Military Police required will be told off by the Officer Commanding Mounted Military Police, and will then proceed to their concentration stations. Their remaining equipment is included in that of the Staffs of the formations to which they are detailed, and will be seen to by those Staffs. The horses required on mobilization will be provided at Aldershot by the Inspector-General of Remounts.

95. The Military Foot Police is formed from the men of this corps serving in peace time, and its Reservists, who will be ordered to join at Aldershot. The various detachments required are told off by the Officer Commanding the corps, and on mobilization will be sent from Aldershot and other stations to their concentration stations. The clothing and necessaries for the Reservists will be sent to Aldershot by the Army Clothing

Department. The personal equipment is kept at Aldershot, and the remainder is included in that of the various Staff units, and will be seen to by those Staffs.

96. *Bearer Companies and Field Hospitals.*—The mobilization of these units will be carried out by the Medical Officer appointed to the command of each, on the same system as for other units, except that the Medical Officers and men allotted to each unit will be collected at the various places of mobilization, in accordance with detailed instructions issued by the Director-General, Army Medical Department. The Reservists of the Medical Staff Corps will be ordered to join at certain fixed stations, in accordance with the requirements of the medical services at these places. Clothing and necessaries will be supplied by the Army Clothing Department to the places where Reservists are to join. Arms and accoutrements are kept by the Ordnance Store Department at these places for the Reservists, while men serving will retain their own arms and accoutrements on transfer to field units. The ordnance stores required by Bearer Companies and Field Hospitals are kept by the Ordnance Store Department at the places shown in the Mobilization Tables, while the Medical Stores will be sent direct to the units at their places of mobilization from the Army Medical Stores at Woolwich (Herbert Hospital). Medical comfort panniers are kept at Woolwich Dockyard, and will be sent on mobilization to units, packed complete, by the Officer in charge, Supply Reserve Depot.

97. The transport for Bearer Companies and Field Hospitals is provided by the Army Service Corps, as detailed in the Field Army Establishments (Home Defence), and the necessary equipment is kept by the Ordnance Store Department on account of the respective Army Service Corps Companies.

98. *Stationary and General Hospitals.*—These will be organized for garrisons by General Officers Commanding Districts as part of their schemes of defence; arrangements will be made at Head-Quarters to meet the requirements of the Field Army.

99. *Medical Staff and Medical Staff Corps allotted by Garrisons.*—The Medical Officers, and men of the Medical Staff Corps who are allotted to garrisons, will be detailed to duties in the garrisons under the direction of General Officers Commanding Districts in accordance with their schemes of defence.

100. *Army Signallers.*—The equipment for these companies, except clothing and necessaries, is kept by the Ordnance Store Department. The companies will be formed on mobilization under orders from Head-Quarters.

101. *Remount Centres and Sick Horse Depôts.*—These will be organized under orders from Head-Quarters.

TREATMENT OF MEN FOUND UNFIT FOR BEARING ARMS.

102. The Commanding Officer will decide as to the fitness or unfitness of men for bearing arms (*see* paragraph 49) after receiving the report of the medical examination. This report will specify any men considered as permanently unfit.

103. Men rejected as temporarily unfit will—

Be sent to hospital for treatment, or be sent to the dépôt (if not already there), according to the nature of their case.

104. Men rejected as permanently unfit will—

Be at once discharged under Section XIX., Queen's Regulations.

These men, if not in hospital with diseases that would be prejudicially affected thereby, should be sent on furlough pending confirmation of discharge.

APPENDICES.

DEFINITIONS AND SCHEDULES.

- A.—Explanation of Terms used.
- B.—Schedule of Officers Commanding Reservists.
- C.—Schedule of Officers Paying Reservists.
- D.—Schedule of Places where Reservists of the various Corps are to join on Mobilization.

MOBILIZATION TABLES.

- E.—Detail of Field Army.
 - F.—List of Regular Units allotted to Garrisons.
 - G.—List of Unallotted Regular Units.
 - H.—List of Regular Units serving at Home, showing the allotment of each Unit on Mobilization.
 - J.—List of Regular Bearer Companies and Field Hospitals in the Field Army, showing the Companies of Medical Staff Corps from which each is formed.
 - K.—Schedule of the Lists of Ordnance Stores required by Units, &c., on Mobilization, referred to in paragraph 35 of the Mobilization Regulations.
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APPENDIX A.

EXPLANATION OF TERMS USED.

1. Each of the following constitutes a "unit," viz. :—

- A regiment of Cavalry (including a machine-gun section, where there is one).
- A battery of Horse, Field, or Mountain Artillery.
- A company of Garrison Artillery.
- The District Establishment, R.A., in a Military District.
- A Field Company, R.E.
- A Field Park, R.E.
- A Fortress Company, R.E.
- A Railway Company, R.E.
- A Mounted Detachment, R.E.
- A Troop, Bridging Battalion, R.E.
- Half Telegraph Battalion, R.E. (head-quarters and four sections).
- A Balloon Section, R.E.
- A battalion of Infantry (including a machine-gun section, where there is one).
- A company, Army Service Corps.
- The Staff of an Army-Corps.*
- The Staff of a Division.*
- The Staff of a Brigade.*
- The Regimental Staff of Corps Artillery.*
- The Regimental Staff of Corps Engineers.*
- Two companies of Mounted Infantry (including a machine-gun section).*
- An Ammunition Column.*
- A Bearer Company.*
- A Field, Stationary, or General Hospital.*
- A company, Army Signallers.*
- A Remount Centre.*
- A Sick Horse Depot.*

2. Units printed above in *italics* do not exist, as such, in peace.

3. The Ordnance Store Corps, military police and postal detachments required for a Corps, Division, &c., are included in

the Staff Units of these formations; they do not therefore appear as separate units.

4. The *place of mobilization* of a unit is the place where the unit is brought to its war establishment of Officers and men, and where its personal and first regimental equipment are kept in mobilization storehouses; it is in nearly all cases the peace station of the unit.

5. The *place of concentration* is the place where a unit of the Field Army takes its station in the particular formation, *i.e.*, Brigade, Division, or Army-Corps, to which it is assigned. The places of concentration are not published in the tables herewith, but will be communicated to Officers concerned when mobilization is ordered.

6. In these Regulations the term Reservist means Army Reservist; on mobilization for home defence, Militia Reservists will not join the Regular Forces, but will serve with their Militia units.

7. The machine-gun sections alluded to above are the sections allotted to Brigades and to Corps Troops; for purposes of mobilization they are considered as part of the unit which provides the personnel of the sections; each machine-gun section is equipped with two machine-guns; the establishment of the section is in addition to the establishment laid down for the unit which finds it.

APPENDIX B.

SCHEDULE OF OFFICERS COMMANDING
RESERVISTS.

Corps.	Officers Commanding Reservists.
Cavalry	Commandant, Cavalry Depôt, Canterbury.
Royal Artillery—	
Royal Horse Artillery ..	} Officer Commanding Depôt, Royal Horse Artillery, Woolwich.
Riding Establishment ..	
Field Artillery—	
1st to 20th Battery ..	Officer Commanding 1st Battery, 1st Depôt Division, Woolwich.
21st to 40th Battery ..	Officer Commanding 2nd Battery, 1st Depôt Division, Woolwich.
41st to 60th Battery ..	Officer Commanding 1st Battery, 2nd Depôt Division, Woolwich.
61st to 80th Battery ..	Officer Commanding 2nd Battery, 2nd Depôt Division, Woolwich.
Mountain Artillery ..	Officer Commanding Depôt, Western Division, R.A., Devonport.
Garrison Artillery, including District Establishments.	Officer Commanding Depôt of the Division to which the Reservist belongs.
Regimental District Staff ..	} Officer Commanding Depôt, Eastern Division, R.A., Dover.
School of Gunnery ..	
Detachment at Shoeburyness.	
Royal Engineers ..	Assistant Commandant, School of Military Engineering, Chatham.
Foot Guards ..	Officer Commanding each regiment, Horse Guards, Whitehall, S.W.
Infantry of the Line ..	Officer Commanding Regimental District of the Territorial Regiment.*

* For the King's Royal Rifle Corps and Rifle Brigade, the Officer Commanding Rifle Depôt is the Officer Commanding the Reservists.

APPENDIX B—*continued.*

Corps.	Officers Commanding Reservists.
Army Service Corps	Assistant Quarter-Master-General, Head-quarters, Army Service Corps, War Office.
Ordnance Store Corps	Officer Commanding Head-quarters, Ordnance Store Corps, Woolwich.
Medical Staff Corps	Staff Officer, Medical Staff Corps, 18, Victoria Street, London, S.W.
Military Police	Assistant Adjutant-General, Alder- shot.
Post Office Corps	Staff Officer of Pensioners, Chelsea Hospital, London, S.W.

APPENDIX C.

SCHEDULE OF OFFICERS PAYING RESERVISTS.

Corps.	Officers paying Reservists.
Cavalry	Paymaster, Cavalry Depôt, Canterbury.
Royal Artillery—	
Royal Horse Artillery ..	} Station Paymaster, Woolwich.
Riding Establishment ..	
Field Artillery	
Mountain Artillery	Station Paymaster, Devonport.
Garrison Artillery, including District Establishments.	Station Paymaster paying the Depôt of the Division to which the Reservist belongs.
Regimental District Staff ..	} Station Paymaster, Dover.
School of Gunnery	
Detachment at Shoeburyness.	
Royal Engineers.. ..	Station Paymaster, Chatham.
Foot Guards	Staff Officer of Pensioners, Chelsea Hospital, London, S.W.
Infantry of the Line	Paymaster of the Regimental District of the Territorial Regiment.*
Army Service Corps	Station Paymaster, Woolwich.
Ordnance Store Corps	Station Paymaster, Woolwich.
Medical Staff Corps	Staff Officer of Pensioners, Chelsea Hospital, London, S.W.
Military Police	District Paymaster, Aldershot.
Post Office Corps	Staff Officer of Pensioners, Chelsea Hospital, London, S.W.

* For the King's Royal Rifle Corps and Rifle Brigade, the Station Paymaster, Winchester, is the Officer paying Reservists.

APPENDIX D.

SCHEDULE OF PLACES WHERE THE RESERVISTS
OF THE VARIOUS CORPS ARE TO JOIN ON
MOBILIZATION.

Corps.	Place where Reservists are to join.
Cavalry	Cavalry Depôt, Canterbury.
Royal Artillery—	
Royal Horse Artillery, including Riding Establishment.	} As ordered by Deputy Adjutant-General, Royal Artillery.
Field Artillery	
Mountain Artillery	Depôt, Western Division, Royal Artillery, Devonport.
Garrison Artillery, including District Establishments.	Depôt of the Division to which the Reservist belongs.
Regimental District Staff ..	} Depôt, Eastern Division, Royal Artillery, Dover.
School of Gunnery	
Detachment at Shoeburyness	
Royal Engineers	As ordered by Deputy Adjutant-General, Royal Engineers.
Foot Guards	Head-quarters of their Regiment, Horse Guards, Whitehall, S.W.
Infantry of the Line	Depôt of the Regiment to which the Reservist belongs.
Army Service Corps ..	} Supply—No. 18 Company, Army Service Corps, Aldershot. Transport—No. 1 Company, Army Service Corps, Aldershot.
Ordnance Store Corps	
Medical Staff Corps	Head-quarters, Ordnance Store Corps, Woolwich.
Military Police	As ordered by Staff Officer, Medical Staff Corps.
Post Office Corps	Head-quarters, Military Police, Aldershot.
	Head-quarters, 24th Middlesex V.R.C.

MOBILIZATION TABLES

FOR

HOME DEFENCE.

APPENDIX E.

DETAIL OF THE FIELD ARMY CONSISTING OF THREE ARMY-CORPS AND FOUR CAVALRY BRIGADES.

1. Units which are printed in *italics* in these tables do not exist as such in peace. They will be formed on mobilization.
2. Clothing and necessaries will be supplied direct from Pimlico as detailed in the Mobilization Regulations, and are not included in the personal equipment referred to in these tables.
3. The detachments of Military Police and of the Post Office Corps which form part of the Staffs of Army-Corps, Divisions, and Brigades, will join their Staff units at the places of concentration, and not at the places of mobilization, of the latter.

APPENDIX E—continued.

CAVALRY.

Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.	
1ST BRIGADE.				
<i>Brigade Staff</i>	} London. Windsor. Hounslow.	} Hounslow.	} Aldershot.	
1 Household Cavalry Regt. ..				
1 Household Cavalry Regt. ..				
1 Cavalry Regt. with Machine-gun Section.	Aldershot.	Aldershot.		
1 Battery, Royal Horse Artillery.				
<i>No. 1 Ammunition Column</i> ..	Aldershot.	Aldershot.		
<i>2 Cos. Mounted Infantry with Machine-gun Section.</i>	Aldershot.	Aldershot (S).		
1 Co. Army Service Corps ..	London.	Hounslow.		
5th London Co., Vol. Med. Staff Corps.	London.	Hounslow.		
$\frac{1}{2}$ No. 11 Field Hospital (Eastern Dist.).	Warley.	Warley.		
2ND BRIGADE.				
<i>Brigade Staff</i>	} Aldershot.	} Aldershot (S).	} Aldershot.	
1 Cavalry Regt.				
1 Cavalry Regt.				
1 Cavalry Regt. with Machine-gun Section.	Aldershot.	Aldershot.		
1 Battery, Royal Horse Artillery.				
<i>No. 2 Ammunition Column</i> ..	Aldershot.	Aldershot.		
Mounted Detachment Royal Engineers.	} Aldershot.	Aldershot (S).		
<i>2 Cos. Mounted Infantry</i> ..				
<i>Mounted Infantry Machine-gun Section.</i>	Aldershot.	Aldershot.		
1 Co. Army Service Corps ..	Aldershot.	Aldershot (S).		
1st Edinburgh Co., Vol. Med. Staff Corps.	Edinburgh.	} Aldershot.		
$\frac{1}{2}$ No. 2 Field Hospital (Western Dist.).	Plymouth.			

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX E—continued.

CAVALRY—continued.

Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.
3RD BRIGADE.			
<i>Brigade Staff</i>	} Dublin.	} Dublin.	} Dublin.
1 Cavalry Regt.			
1 Cavalry Regt. (1)	} Curragh.	} Dublin.	} Dublin.
1 Cavalry Regt. with Machine-gun Section (2).			
1 Battery, Royal Horse Artillery.	Dublin.	Dublin.	} Dublin.
<i>No. 3 Ammunition Column</i> ..	Dublin.	Dublin.	
2 Cos. Mounted Infantry, with Machine-gun Section.	Curragh.	Dublin.	} Dublin.
1 Co. Army Service Corps ..	Dublin.	Dublin.	
1st Norwich Co., Vol. Med. Staff Corps.	Norwich.	Hounslow.	} Dublin.
$\frac{1}{2}$ No. 2 Field Hospital (Western Dist.).	Plymouth.	Aldershot.	
4TH BRIGADE.			
<i>Brigade Staff</i>	} York.	} Weedon.	} Weedon.
1 Cavalry Regt.			
1 Cavalry Regt.	Leeds.	} Weedon.	} Weedon.
1 Cavalry Regt. with Machine-gun Section.	Manchester (A).		
1 Battery, Royal Horse Artillery.	Dublin.	Dublin.	} Weedon.
<i>No. 4 Ammunition Column</i> ..	Weedon.	Weedon.	
2 Cos. Mounted Infantry ..	Aldershot.	Aldershot (S).	} Weedon.
<i>Mounted Infantry Machine-gun Section.</i>	Aldershot.	Aldershot.	
1 Co. Army Service Corps ..	Aldershot.	Weedon (S) ..	} Weedon.
1st Aberdeen Co., Vol. Med. Staff Corps.	Aberdeen.	Weedon.	
$\frac{1}{2}$ No. 11 Field Hospital (Eastern Dist.).	Warley.	Warley.	} Weedon.

(1) Temporarily quartered at Dundalk.

(2) Temporarily quartered at Newbridge.

(A) These stores are kept at Weedon temporarily.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX E—continued.

1st ARMY-CORPS.

1ST DIVISION.						
Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.			
<i>Divisional Staff</i>	London (B).	West Croydon.	Woolwich.			
1ST BRIGADE.						
<i>Brigade Staff</i>						
1 Battalion (Guards)						
1 Battalion (Guards)						
1 Battalion (Guards)						
1 Battalion with Machine-gun Section (Guards).						
1 Co. Army Service Corps ..						
<i>No. 1 Bearer Co. (Home Dist.)</i>						
2ND BRIGADE.						
<i>Brigade Staff</i>	Devonport and Plymouth. Portland. Devonport.	West Croydon.	Aldershot.			
1 Battalion						
1 Battalion						
1 Battalion						
1 Battalion with Machine-gun Section.						
1 Co. Army Service Corps ..						
<i>No. 2 Bearer Co. (W. Dist.)</i> ..						
DIVISIONAL TROOPS.						
No. 2 squadron, Cavalry Regt.				Brighton.	West Croydon.	Woolwich.
1 Field Batt., R.A.				Woolwich.	Woolwich.	
1 Field Batt., R.A.						
1 Field Batt., R.A.						
<i>No. 5 Ammunition Column</i> ..	Caterham.	Caterham.				
1 (Field) Co., R.E.	Chatham.	Chatham.				
1 Co. Army Service Corps ..	Chatham.	West Croydon.				
<i>No. 1 Field Hospital (Home Dist.)</i> .	London.	London.				

(B) One battalion may be quartered at Windsor.

APPENDIX E—continued.

1ST ARMY-CORPS—continued.

2ND DIVISION.

Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.
<i>Divisional Staff</i>	Aldershot.	Aldershot (S).	Aldershot.
3RD BRIGADE.			
<i>Brigade Staff</i>			
1 Battalion			
1 Battalion			
1 Battalion			
1 Battalion with Machine-gun Section.			
1 Co. Army Service Corps ..			
<i>No. 3 Bearer Co. (Aldershot)</i>			
4TH BRIGADE.			
<i>Brigade Staff</i>	Aldershot.	Aldershot (S).	Aldershot.
1 Battalion			
1 Battalion			
1 Battalion			
1 Battalion with Machine-gun Section.			
1 Co. Army Service Corps ..			
<i>No. 4 Bearer Co. (Aldershot)</i>			
DIVISIONAL TROOPS.	Brighton.	West Croydon.	Woolwich.
<i>No. 3 Squadron, Cavalry Regt.</i>			
1 Field Batt., R.A.			
1 Field Batt., R.A.			
1 Field Batt., R.A.			
<i>No. 6 Ammunition Column</i>			
1 (Field) Co., R.E.			
1 Co. Army Service Corps ..			
<i>No. 6 Field Hospital (N.B. Dist.).</i>	Aldershot.	Aldershot (S).	Aldershot.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX E—*continued.*
1ST ARMY-CORPS—*continued.*

3RD DIVISION.

Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.
<i>Divisional Staff</i>			
5TH BRIGADE.			
<i>Brigade Staff</i>	Dublin.		
1 Battalion			
1 Battalion			
1 Battalion			
1 Battalion with Machine-gun Section.	Curragh.		
1 Co. Army Service Corps ..			
<i>No. 5 Bearer Co. (Dublin Dist.)</i>	Dublin.	West Croydon.	Dublin.
6TH BRIGADE.			
<i>Brigade Staff</i>	Cork.		
1 Battalion			
1 Battalion	Fermoy (C).		
1 Battalion			
1 Battalion with Machine-gun Section.	Cork.		
1 Co. Army Service Corps ..	Dublin.		
<i>No. 6 Bearer Co. (Cork Dist.)</i>	Cork.		
DIVISIONAL TROOPS.			
No. 4 Squadron, Cavalry Regt.	Brighton.	West Croydon.	Woolwich.
1 Field Batt., R.A. (1) ..			
1 Field Batt., R.A. (2) ..	Newbridge.	Newbridge.	
1 Field Batt., R.A. (3) ..			
<i>No. 7 Ammunition Column</i> ..	Caterham.	Caterham.	
1 (Field) Co., R.E.	Curragh.	Curragh.	Dublin.
1 Co. Army Service Corps ..	Curragh.	Aldershot.	
<i>No. 9 Field Hospital (Curragh)</i>	Curragh.	Curragh.	

(1) Temporarily quartered at Clonmel, battery station equipment at Queenstown.

(2) Temporarily quartered at Limerick, battery station equipment at Queenstown.

(3) Temporarily quartered at Fermoy.

(C) This equipment is kept at Cork temporarily.

APPENDIX E—continued.

1ST ARMY-CORPS—continued.

CORPS TROOPS.

Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.
<i>Corps Staff</i>	London.	London.	} Woolwich.
Head-quarters and No. 1 Squadron, Cavalry Regt.	Brighton.	West Croydon.	
CORPS ARTILLERY.			
<i>Staff</i>	} Woolwich.	Woolwich.	} Woolwich.
1 Batt., R.H.A.		Woolwich.	
1 Batt., R.H.A.	} London.	London.	
1 Batt., R.H.A. (1)		London.	
1 Field Batt., R.A.	} Hilsea.	Hilsea.	
1 Field Batt., R.A.		Hilsea.	
1 Field Batt., R.A.	} Christchurch.	Christchurch.	
1 Field Batt., R.A.		Caterham.	
No. 8 Ammunition Column ..	Caterham.	Caterham.	
CORPS ENGINEERS.			
<i>Staff</i>	} Aldershot.	Aldershot (S).	} Aldershot.
"A" Troop, Bridging Bn., R.E.			
Head-quarters and Sections 1 to 4, Telegraph Bn., R.E.			
1 (Field) Co., R.E.			
No. 1 Field Park, R.E.			
Balloon Section, R.E.			
CORPS INFANTRY.			
1 Battalion with Machine-gun Section.	Woolwich.	West Croydon.	Woolwich.
CORPS DETAILS.			
No. 1 Co. Army Signallers ..	Aldershot.	Aldershot (S).	} Aldershot.
1 Co. Army Service Corps ..	Aldershot.	West Croydon (S).	

(1) Temporarily quartered at Woolwich.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX E—*continued.*

IIInd ARMY-CORPS.

4TH DIVISION.

Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.
<i>Divisional Staff</i>	Dublin.	} Warley.	} Dublin.
7TH BRIGADE.			
<i>Brigade Staff</i>	Dublin.		
1 Battalion	Mullingar.		
1 Battalion	} Dublin.		
1 Battalion			
1 Battalion with Machine-gun Section.			
1 Co. Army Service Corps ..	Dublin.		
1st London Co., Vol. Med. Staff Corps.	London.		
8TH BRIGADE.			
<i>Brigade Staff</i>	} Belfast.		
1 Battalion			
1 Battalion			
1 Battalion			
1 Battalion with Machine-gun Section.			
1 Co. Army Service Corps ..	Curragh.		
2nd London Co., Vol. Med. Staff Corps.	London.		
DIVISIONAL TROOPS.			
No. 2 Squadron, Cavalry Regt.	Colchester.	Colchester.	} Weedon.
1 Field Batt., R.A.	} Weedon.	Weedon.	
1 Field Batt., R.A.		Weedon.	
1 Field Batt., R.A.	Coventry.	Coventry.	
No. 9 Ammunition Column ..	Warley.	Warley.	
1 (Field) Co., R.E.	Curragh.	Curragh.	
1 Co. Army Service Corps ..	Woolwich.	Warley.	
No. 7 Field Hospital (Dublin Dist.).	Dublin.	Dublin.	

APPENDIX E—*continued.*
 IIND ARMY-CORPS—*continued.*

5TH DIVISION.						
Detail.	Station and Place where Personal and First Regimental Equip- ment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn			
<i>Divisional Staff</i>	Colchester.	Tilbury.	Woolwich.			
9TH BRIGADE.						
<i>Brigade Staff</i>	Portsmouth.	} Tilbury.	} Aldershot.			
1 Battalion	(D).					
1 Battalion (Anglesey Barracks)	} Portsmouth.					
1 Battalion (Gosport) ..						
1 Battalion with Machine-gun Section.	Aldershot.					
1 Co. Army Service Corps ..	Portsmouth.	}	}			
<i>No. 9 Bearer Co. (Woolwich)</i>	Woolwich.					
10TH BRIGADE.						
<i>Brigade Staff</i>	} Birr.	} Tilbury.	} Dublin.			
1 Battalion						
1 Battalion	Kilkenny.					
1 Battalion	Kinsale (E).					
1 Battalion with Machine-gun Section.	Tipperary.					
1 Co. Army Service Corps ..	Aldershot.	}	}			
1st Woolwich Co., Vol. Med. Staff Corps.	Woolwich.					
DIVISIONAL TROOPS.						
No. 3 Squadron, Cavalry Regt.	Colchester.	Colchester.	} Weedon.			
1 Field Batt., R.A.	} Newcastle.	Newcastle.				
1 Field Batt., R.A.						
1 Field Batt., R.A.						
<i>No. 10 Ammunition Column</i> ..	Tilbury.	Tilbury.				
1 (Field) Co., R.E.	Aldershot.	Aldershot.	}			
1 Co. Army Service Corps ..	Curragh.	Tilbury.				
<i>No. 8 Field Hospital (Cork Dist.).</i>	Cork.	Cork.				

(D) The station to provide this battalion is not yet settled; Second Regimental Outfit to be at Tilbury.

(E) Personal and First Regimental Equipment is kept at Cork temporarily.

APPENDIX E—continued.
 IIND ARMY-CORPS—continued.

6TH DIVISION.

Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.
<i>Divisional Staff</i>			
11TH BRIGADE.			
<i>Brigade Staff</i>	Colchester.		
1 Battalion		Colchester.	Woolwich.
1 Battalion			
1 Battalion	Warley.		
1 Battalion with Machine-gun Section.			
1 Co. Army Service Corps ..	Colchester.		
<i>No. 7 Bearer Co. (E. Dist.)</i> ..	Colchester.		
12TH BRIGADE.			
<i>Brigade Staff</i>	York.		
1 Battalion	Bradford.		
1 Battalion	Sheffield.	Colchester.	
1 Battalion	Manchester.		
1 Battalion with Machine-gun Section.			
1 Co. Army Service Corps ..	Woolwich.		
1st Leeds Co., Vol. Med. Staff Corps.	Leeds.		
DIVISIONAL TROOPS.			Weedon.
No. 4 Squadron, Cavalry Regt.	Colchester.	Colchester.	
1 Field Batt., R.A.			
1 Field Batt., R.A.	Colchester.	Colchester.	
1 Field Batt., R.A.			
<i>No. 11 Ammunition Column</i> ..	Colchester.	Colchester	
1 (Field) Co., R.E.	Aldershot.	Aldershot.	
1 Co. Army Service Corps ..	Woolwich.	Colchester.	
<i>No. 3 Field Hospital (Thames Dist.)</i> .	Chatham.	Chatham.	

APPENDIX E—*continued.*IND ARMY-CORPS—*continued.*

CORPS TROOPS.			
Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.
<i>Corps Staff</i>	Colchester.	} Colchester.	Weedon.
Head-quarters and No. 1 Squadron, Cavalry Regt.	Colchester.		
CORPS ARTILLERY.			
<i>Staff</i>	Ipswich.	Ipswich.	} Weedon.
1 Batt., R.H.A.	Aldershot.	Aldershot.	
1 Batt., R.H.A.	Dorchester.	Dorchester.	
1 Field Batt., R.A.	} Ipswich.	Ipswich.	
1 Field Batt., R.A.		Glasgow.	
1 Field Batt., R.A.		Warley.	
<i>No 12 Ammunition Column</i> ..	Warley.	Warley.	
CORPS ENGINEERS.			
<i>Staff</i>	} Aldershot.	Aldershot.	} Aldershot.
"B" Troop, Bridging Bn., R.E.			
Sections 5 to 8, Telegraph Bn., R.E.			
1 (Fortress) Co., R.E. (F). ..	London.	London.	}
No. 2 Field Park, R.E. ..	Aldershot.	Aldershot.	
CORPS INFANTRY.			
1 Battalion with Machine-gun Section.	Preston.	Warley.	Weedon.
CORPS DETAILS.			
<i>No. 2 Co. Army Signallers</i> ..	Warley.	} Warley.	Weedon.
1 Co. Army Service Corps ..	Dublin.		

(F, As a Field Company.

APPENDIX E—*continued*.

IIIrd ARMY-CORPS.

7TH DIVISION.

Detail.	Station and Place of Mobilization where Personal and First Regimental Equip-ment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.				
<i>Divisional Staff</i>	Chatham.	Chatham.	}				
13TH BRIGADE.							
<i>Brigade Staff</i>	Hounslow.			}			
3rd Bn. Royal Fusiliers ..							
4th Bn. Royal Fus. (Finsbury)							
5th Bn. Royal Fusiliers ..							
3rd Bn. Middlesex Regt. ..							
4th Bn. Middlesex Regt., with Machine-gun Section.							
1 Co. Army Service Corps ..	Woolwich.				Chatham.	}	
3rd London Co., Vol. Med. Staff Corps.	London.						
14TH BRIGADE.							
<i>Brigade Staff</i>	London.						
3rd Bn. East Surrey Regt. ..	Kingston.						Woolwich.
4th Bn. East Surrey Regt. ..	Kingston.						
7th Bn. King's Rl. Rifle Corps	Barnet.						
5th Bn. Rifle Brigade.. ..	London.						
7th Bn. Rifle Brigade, with Machine-gun Section.	Dalston (T).						
1 Co. Army Service Corps ..	Aldershot.	Chatham (S).	}				
4th London Co., Vol. Med. Staff Corps.	London.	Chatham.					
DIVISIONAL TROOPS.							
No. 2 Squadron, Cavalry Regt.	Shorncliffe (H).	Shorncliffe.					
1 Field Batt., R.A.	Exeter.	Exeter.					
1 Field Batt., R.A.							
1 Field Batt., R.A.							
No 13 Ammunition Column ..	Trowbridge.	Trowbridge.					
1 (Fortress) Co., R.E. (G) ..	Chatham.	Chatham.					
1 Co. Army Service Corps ..	Chatham.						
1 Co. Army Service Corps ..	Devonport.	Aldershot (S).					
No 13 Field Hospital (N.W. Dist.).	Aldershot.						

(G) As a Field Company.

(H) Small-arms at Dover.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

(T) Equipment is kept at the Tower.

APPENDIX E—*continued.*IIIrd ARMY-CORPS—*continued.*

8TH DIVISION.

Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.	
<i>Divisional Staff</i>	Chatham.	Chatham.	Woolwich.	
15TH BRIGADE.				
<i>Brigade Staff</i>	York.	} Chatham.	}	
3rd Bn. West Yorkshire Regt.	York.			
4th Bn. West Yorkshire Regt.	York.			
3rd Bn. West Riding Regt. ..	Halifax.			
3rd Bn. Yorkshire L.I. ..	Pontefract.			
3rd Bn. York and Lancaster Regt., with Machine-gun Section.	Pontefract ..			
1 Co. Army Service Corps ..	Aldershot ..	Chatham (S).	} Weedon.	
No. 10 Bearer Co. (S. Dist.)	Portsmouth ..	Chatham.		
16TH BRIGADE.				
<i>Brigade Staff</i>	Preston	} Chatham.		
3rd & 4th Bns. Royal Lancaster Regt.	Lancaster ..			
3rd & 4th Bns. Lancashire Fus.	Bury			
3rd Bn. East Lancashire Regt.	Burnley ..			
3rd & 4th Bns. Loyal North Lancashire Regt., with Machine-gun Section.	Preston			
1 Co. Army Service Corps ..	Aldershot ..	Chatham (S).		
1st Manchester Co., Vol. Med. Staff Corps.	Manchester ..	Chatham.		
DIVISIONAL TROOPS.				
No. 3 Squadron, Cavalry Regt.	Shorncliffe (H).	Shorncliffe.	Woolwich.	
1 Field Batt., R.A.	} Aldershot.	} Aldershot.	} Aldershot.	
1 Field Batt., R.A.				
1 Field Batt., R.A.				
No. 14 Ammunition Column ..	Chatham.	} Chatham.		
1 (Fortress) Co., R.E. (G) ..	Chatham.			
1 Co. Army Service Corps ..	Portsmouth.			
No. 12 Field Hospital (N.W. Dist.).	Aldershot.	Aldershot (S).		

(G) As a Field Company.

(H) Small-arms at Dover.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX E—continued.

IIIRD ARMY-CORPS—continued.

9TH DIVISION.

Detail.	Station and Place where Personal and First Regimental Equip- ment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.
<i>Divisional Staff</i>	Dover.	Dover.	Aldershot.
17TH BRIGADE.			
<i>Brigade Staff</i>	Dover.	Dover.	
1 Battalion			
1 Battalion			
1 Battalion	Shorncliffe (H).	Shorncliffe.	
1 Battalion, with Machine-gun Section (1).			
1 Co. Army Service Corps ..	Shorncliffe (J).	Shorncliffe (J).	
<i>No. 8 Bearer Co. (S.E. Dist.)</i>	Aldershot.	Dover (S).	
18TH BRIGADE.			
<i>Brigade Staff</i>	Maidstone.	Maidstone.	
3rd Bn. Royal West Surrey Regt.	Guildford.		
3rd Bn. Royal Sussex Regt. ..	Chichester.		
3rd Bn. Royal Berkshire Regt.	Reading.		
3rd & 4th Bns. Royal West Kent Regt., with Machine- gun Section.	Maidstone.		
1 Co. Army Service Corps ..	Woolwich.		
1st Maidstone Co., Vol. Med. Staff Corps.	Maidstone.		
DIVISIONAL TROOPS.			
No. 4 squadron, Cavalry Regt.	Shorncliffe (H).	Shorncliffe.	Woolwich.
1 Field Batt., R.A.	Shorncliffe.	Shorncliffe.	Aldershot.
1 Field Batt., R.A.			
1 Field Batt., R.A.			
<i>No. 15 Ammunition Column</i> ..	Chatham.	Chatham.	
1 (Field) Co., R.E.	Shorncliffe (H).	Shorncliffe.	
1 Co. Army Service Corps ..	Shorncliffe (J).	Shorncliffe (J).	
<i>No. 10 Field Hospital (N.E. Dist.).</i>	Aldershot.	Aldershot (S).	

(1) Temporarily quartered at Aldershot.

(H) Small-arms at Dover.

(J) Small-arms and vehicles at Dover.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX E—*continued.*IIIrd ARMY-CORPS—*continued.*

CORPS TROOPS.			
Detail.	Station and Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	Centre from which horses will be drawn.
<i>Corps Staff</i> Head - quarters and No. 1 Squadron, Cavalry Regt.	Maidstone. Shorncliffe (H).	Maidstone. Shorncliffe.	} Woolwich.
CORPS ARTILLERY.			
<i>Staff</i> 1 Field Batt., R.A. 1 Field Batt., R.A. 1 Field Batt., R.A. <i>No. 16 Ammunition Column</i> ..	} Sheffield. Longford. Chatham.	Sheffield. Longford. Chatham.	} Woolwich.
CORPS ENGINEERS.			
1st London Volunteer Engineers (Field Company).	London.	London.	} Woolwich.
CORPS INFANTRY.			
4th Bn. Derbyshire Regt., with Machine-gun Section.	Newark.	Maidstone.	Weedon.
CORPS DETAILS.			
<i>No. 3 Co. Army Signallers</i> .. 1 Co. Army Service Corps ..	Maidstone. Woolwich.	} Maidstone.	Woolwich.

(H) Small-arms at Dover.

APPENDIX F.

LIST OF REGULAR UNITS ALLOTTED TO GARRISONS.

Unit.	Station.	District to which allotted.	Remarks.
Fortress Co., R.E.	.. Cork	Cork	
" "	.. Portsmouth ..	Southern ..	
Railway Co., R.E.	.. Chatham ..	} Thames. ..	
" "	.. Woolwich ..		
Survey Co., R.E.	.. Bedford.. ..	Eastern. ..	
" "	.. Clifton	Western. ..	
" "	.. Dublin	Ireland	
" "	.. Southampton ..	Southern ..	
Infantry Bn. (Guards)	.. Dublin (T) ..	Dublin	
Infantry Battalion	.. Buttevant ..	Cork	
" " ..	.. Chatham ..	Thames ..	
" " ..	.. Dover	South-Eastern ..	
" " ..	.. Guernsey ..	Guernsey ..	
" " ..	.. Jersey	Jersey	
" " ..	.. Parkhurst ..	Southern ..	
" " ..	.. Plymouth ..	Western ..	
" " ..	.. Portsmouth ..	} Southern ..	
" " ..	.. Portsmouth ..		

NOTE.—The Royal Artillery (Garrison) and Submarine Mining Companies, R.E., are not shown in this table, as they are allotted to the Districts where they are quartered, as shown in detail in Appendix H.

(T) Personal equipment is kept at the Tower.

APPENDIX G.

LIST OF UNALLOTTED REGULAR UNITS, SHOWING WHERE THEIR MOBILIZATION STORES ARE KEPT.

Unit.	Station and Place of Mobilization where Personal Equipment is kept.	Centre from which horses will be drawn.
Cavalry Regiment	Ballincollig	} Dublin.
" "	Dublin	
" "	Dundalk (C)	
" "	Edinburgh	Weedon.
Household Cavalry Regiment ..	London	Woolwich.
Cavalry Regiment	Norwich	Weedon.
Field Battery	} Athlone	} Dublin.
Field Battery		
Infantry Battalion	Athlone	
" "	Curragh	
" "	Edinburgh	
" "	Galway	
" "	Glasgow	
" "	Limerick	
" " (Guards)	London (T)	
" "	Pembroke Dock	
" " (Guards)	Windsor* (T)	

NOTES.—The Field Batteries are in possession of their full war equipment.

For the Cavalry Regiments, saddlery for riding-horses up to War Establishment is kept in addition to personal equipment.

The Depot Batteries of Field and Mountain Artillery are unallotted, and mobilization stores are not provided for them.

(C) Temporarily at Cahir.

(T) Personal equipment at the Tower.

* Or 1st Brigade.

APPENDIX H.

LIST OF REGULAR UNITS SERVING AT HOME, SHOWING THE ALLOTMENT OF EACH UNIT ON MOBILIZATION.

CAVALRY.

Regiment.	Station.	How allotted on Mobilization.	Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.
	Aldershot ..	2nd Cavalry Brigade ..	Aldershot ..	Aldershot (S).
	Aldershot ..	2nd Cavalry Brigade ..	Aldershot ..	Aldershot (S).
	Aldershot ..	2nd Cavalry Brigade ..	Aldershot ..	Aldershot (S).
	Ballincollig	Unallotted ..	Ballincollig ..	
	Brighton ..	I. Army-Corps Regt. ..	Brighton ..	West Croydon.
	Colchester..	II. Army-Corps Regt... ..	Colchester ..	Colchester.
	Curragh (3)	3rd Cavalry Brigade ..	Curragh ..	Dublin.
	Curragh (4)	3rd Cavalry Brigade ..	Curragh ..	Dublin.
	Dublin ..	3rd Cavalry Brigade ..	Dublin ..	Dublin.
	Dublin ..	Unallotted ..	Dublin ..	

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

(3) Temporarily quartered at Newbridge.

(4) Temporarily quartered at Dundalk.

APPENDIX H—*continued.*
CAVALRY—*continued.*

Regiment.	Station.	How allotted on Mobilization.	Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.
	Dundalk (5)	Unallotted	Dundalk	..
	Edinburgh	Unallotted	Edinburgh	..
	Hounslow ..	1st Cavalry Brigade	Hounslow	..
	Leeds ..	4th Cavalry Brigade	Leeds ..	..
	London (Household).	1st Cavalry Brigade	London ..	..
	London (Household).	Unallotted	London ..	..
	Manchester	4th Cavalry Brigade	Manchester (1)	..
	Norwich ..	Unallotted	Norwich	..
	Shorncliffe..	III. Army-Corps Regt..	Shorncliffe (2) ..	..
	Windsor (Household).	1st Cavalry Brigade	Windsor	..
	York ..	4th Cavalry Brigade	York ..	..

(1) Temporarily kept at Weedon. (2) Small-arms at Dover. (5) Temporarily quartered at Cahir.
NOTE.—The stations named in the above table are in anticipation of the completion of the Barrack Scheme.

APPENDIX H—continued.
ROYAL ARTILLERY—HORSE AND FIELD AND MOUNTAIN—continued.

Battery.	Station and Place of Mobilization.	How allotted on Mobilization.	Remarks.
	London (R.H.A.) ..	I. Army-Corps ..	<i>Temporarily at Woolwich.</i>
	Longford ..	III. Army-Corps ..	
	Newbridge (R.H.A.) ..	3rd Cavalry Brigade ..	
	Newbridge (R.H.A.) ..	4th Cavalry Brigade ..	
	Newbridge ..	3rd Division..	
	Newbridge ..	3rd Division..	<i>Temporarily at Clonmel.</i>
	Newbridge ..	3rd Division..	<i>Temporarily at Limerick.</i>
	Newbridge ..	3rd Division..	<i>Temporarily at Fermoy.</i>
	Newcastle ..	5th Division..	
	Newcastle ..	5th Division..	
	Newcastle ..	5th Division..	
	Newport (Mountain Depot). ..	Unallotted. ..	
	Sheffield ..	III. Army-Corps ..	
	Sheffield ..	III. Army-Corps ..	
	Shorncliffe ..	9th Division..	
	Shorncliffe ..	9th Division..	
	Shorncliffe ..	9th Division..	
	Trowbridge ..	7th Division..	
	Weedon ..	4th Division..	
	Weedon ..	4th Division..	
	Woolwich (R.H.A.) ..	I. Army-Corps ..	
	Woolwich (R.H.A.) ..	I. Army-Corps ..	
	Woolwich ..	1st Division ..	
	Woolwich ..	1st Division ..	
	Woolwich ..	1st Division ..	
	Woolwich (Depôt, 4 batts.) ..	Unallotted ..	

Horse Artillery are distinguished from Field Batteries by the letters (R.H.A.).

APPENDIX H—continued.
ROYAL ARTILLERY—GARRISON.

Unit.	Stations of Units.	District to which detailed on Mobilization.	Unit.	Stations of Units.	District to which detailed on Mobilization.
G Dover	South-Eastern District.		M Portsmouth ..	Southern District.
G Dover			M Portsmouth ..	
Dover (Depôt)			M Portsmouth ..	
South-Eastern District Establishment.				Portsmouth ..	
M Sheerness	Thames District.		Portsmouth ..	
M Sheerness			Golden Hill, I.W.	
G Shoeburyness			Golden Hill, I.W.	
Shoeburyness			Fort Rowner (Depôt)	
Woolwich (Sub-Depôt)	Eastern District.		M Weymouth ..	
Thames District Establishment.				Southern District Establishment.	
Landguard Fort				
Eastern District Establishment.					
Yarmouth (Sub-Depôt)				

APPENDIX H—continued.
ROYAL ARTILLERY—GARRISON—continued.

Unit.	Stations of Units.	District to which detailed on Mobilization.	Unit.	Stations of Units.	District to which detailed on Mobilization.
M Devonport	Western District.	GM Cork Harbour	M Cork Harbour	Ireland.
M Devonport		Templemore (Sub-Depôt) District Establishment in Ireland.		
Devonport		Sunderland (Sub-Depôt) North - Eastern District Establishment.		North-Eastern District.
Devonport (Depôt)		Leith (Sub-Depôt)	North British District Establishment.	
Pembroke Dock		Seaforth (Sub-Depôt)	North - Western District Establishment.	North-Western District.
Western District Establishment.				
Jersey	Channel Islands.			
Guernsey				
Channel Islands District Establishment.				

Three Officers and 252 non-commissioned officers and men are to be detailed from the companies marked **G**, and 664 non-commissioned officers and men from the companies marked **M**, as reinforcements, in anticipation of war, for the garrisons of Gibraltar and Malta respectively. These details will take with them their arms and accoutrements; the companies will be brought up to establishment by Reservists, for whom arms and accoutrements are kept in Ordnance Store charge at the stations occupied by the companies. A further supply of arms and accoutrements for any Reservists surplus to the establishment is kept in Ordnance Store charge at the head-quarters of the Garrison Artillery Divisions.

APPENDIX H—continued.
ROYAL ENGINEERS.

Letter or No.	Unit.	Station.	How allotted on Mobilization.	Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.
	Bridging Troop	Aldershot	I. Army-Corps	Aldershot	Aldershot (S).
	"	Aldershot	II. Army-Corps	Aldershot	Aldershot.
	Telegraph Division	Aldershot	I. Army-Corps	Aldershot	Aldershot (S).
	"	London	II. Army-Corps	Aldershot	Aldershot.
	Field Park	Aldershot	I. Army-Corps	Aldershot	Aldershot (S).
	"	Aldershot	II. Army-Corps	Aldershot	Aldershot.
	Mounted Detachment	Aldershot	2nd Cavalry Brigade.	Aldershot	Aldershot (S).
	Field Company	Aldershot	2nd Division.	Aldershot	Aldershot (S).
	"	Aldershot	I. Army-Corps	Aldershot	Aldershot (S).
	"	Aldershot	5th Division.	Aldershot	Aldershot.
	"	Aldershot	6th Division.	Aldershot	Aldershot.
	"	Chatham	1st Division	Chatham	Chatham.
	"	Shorncliffe	9th Division	Shorncliffe (H)	Shorncliffe.
	"	Curragh	3rd Division	Curragh	Curragh.
	"	Curragh	4th Division	Curragh	Curragh.
	"	London	II. Army-Corps*	London	London.
	Fortress Company	Chatham	7th Division*	Chatham	Chatham.
	"	Chatham	8th Division*	Chatham	Chatham.
	"	Cork	Cork	Cork	Cork.
	"	Portsmouth	Southern District	Portsmouth	Portsmouth.
	"	Chatham	Thames District	Chatham	Chatham.
	Railway Company	Chatham	Thames District	Chatham	Chatham.

* As Field Companies.

(H) Small-arms at Dover.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX H—continued.

ROYAL ENGINEERS—continued.

Letter or No.	Unit.	Station.	How allotted on Mobilization.	Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.
	Railway Company	Woolwich	Thames District		
	Survey Company	Bedford	Eastern District		
	" "	Clifton	Western District		
	" "	Dublin	Ireland		
	" "	Southampton	Southern District		
	Submarine Mining Company.	Gosport	Southern District		
	" "	Isle of Wight	Southern District		
	" "	Harwich	Eastern District		
	" "	Gravesend	Eastern District		
	" "	Sheerness	Eastern District		
	" "	Chatham "M"	Thames District		
	" "	Company, Depôt.	Thames District		
	" "	Plymouth	Western District		
	" "	Pembroke Dock	Western District		
	" "	Cork	Cork		
	Balloon Section	Aldershot	I. Army-Corps	Aldershot	Aldershot (S).

The detachments of the Coast Battalion, Royal Engineers, form part of the garrisons of the places where they are located in peace.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX H—continued.

INFANTRY.

Battalion.	Station.	How allotted on Mobilization.	Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.	
	Aldershot	3rd Brigade	..	Aldershot (S).	
	Aldershot				
	Aldershot				
	Aldershot	4th Brigade	..	Aldershot (S).	
	Aldershot				
	Aldershot				
	Aldershot	9th Brigade	..	Tilbury.	
	Aldershot				
	Aldershot				
	Athlone	Unallotted	..	Warley.	
	Belfast	8th Brigade	..		
	Belfast				
	Bradford	10th Brigade	..	Tilbury, Colchester.	
	Buttevant	12th Brigade	..		
	Chatham	Buttevant	..		
	Colchester	Thames District	..	Colchester.	
	Colchester	11th Brigade	..		
	Colchester				
	Cork		6th Brigade	..	West Croydon.
	Cork				
	Cork				
	Curragh	5th Brigade	..	West Croydon.	
	Curragh				
	Curragh				
	Curragh	Unallotted	..	West Croydon.	
	Curragh	See Plymouth..	..		
	Devonport				

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX H—*continued*.
INFANTRY—*continued*.

Battalion.	Station.	How allotted on Mobilization.	Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.
	Dover	17th Brigade ..	Dover	Dover.
	Dover	South-Eastern District	Dover ..	..
	Dover	5th Brigade ..	Dublin ..	West Croydon.
	Dublin	7th Brigade ..	Dublin ..	Warley.
	Dublin	Ireland	Dublin (T)	..
	Dublin (Guards)	Unallotted	Edinburgh	..
	Edinburgh	8th Brigade ..	Enniskillen	Warley.
	Enniskillen	6th Brigade ..	Fernoy (C)	West Croydon.
	Fernoy	Unallotted	Galway	..
	Fernoy	Unallotted	Glasgow	..
	Galway	See Portsmouth	Guernsey	..
	Glasgow	Guernsey and Alderney	Jersey ..	..
	Glasgow	Jersey ..	Kilkenny	Tilbury.
	Guernsey	10th Brigade ..	Kinsale (C)	Tilbury.
	Jersey	10th Brigade ..	Limerick	..
	Kilkenny	Unallotted	London*	West Croydon.
	Kinsale	1st Brigade ..	London ..	..
	Limerick	1st Brigade ..	London ..	..
	London (Guards)	1st Brigade†	London ..	..
	London (Guards)	1st Brigade	London ..	..
	London (Guards)	Unallotted	London ..	..

* One battalion may be at Windsor.

† Or unallotted.

(C) This equipment is kept at Cork temporarily.

(T) Personal equipment at the Tower.

APPENDIX H—continued.

INFANTRY—continued.

Battalion.	Station.	How allotted on Mobilization.	Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.
	Manchester ..	12th Brigade ..	Manchester ..	Colchester.
	Mullingar ..	7th Brigade ..	Mullingar ..	Warley.
	Newry ..	8th Brigade ..	Newry ..	Warley.
	Parkhurst ..	Southern District	Portsmouth ..	..
	Pembroke Dock	Unallotted ..	..	..
	Plymouth ..	} 2nd Brigade ..	Plymouth ..	West Croydon.
	Plymouth ..			
	Plymouth ..	Western District	Plymouth ..	..
	Portland ..	2nd Brigade ..	Portland ..	West Croydon.
	Portsmouth (Anglesea)	8th Brigade ..	Portsmouth ..	Tilbury.
	Portsmouth (Gosport)	} Southern District	Portsmouth ..	..
	Portsmouth ..			
	Preston ..	II. Army-Corps	Preston ..	Warley.
	Sheffield ..	12th Brigade ..	Sheffield ..	Colchester.
	Shorncliffe ..	} 17th Brigade ..	Shorncliffe (H)	Shorncliffe
	Tipperary ..			
	Warley ..	10th Brigade ..	Tipperary ..	Tilbury.
	Windsor (Guards)	11th Brigade ..	Warley ..	Colchester.
	Woolwich ..	Unallotted* ..	London ..	..
	York ..	I. Army-Corps	Woolwich ..	West Croydon.
		12th Brigade ..	York ..	Colchester.

* Or 1st Brigade.
 (H) Small-arms at Dover.
 The remaining battalions in the Field Army are found by Militia, and they are therefore not included in this Table, which applies to Regulars only.

APPENDIX H—continued.

ARMY SERVICE CORPS.

Company.	Station.	How allotted on Mobilization.	Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.
Aldershot	Aldershot	3rd Brigade	Aldershot	Aldershot (S).
Aldershot	Aldershot	4th Brigade	Aldershot	Aldershot (S).
Aldershot	Aldershot	2nd Division	Aldershot	Aldershot (S).
Aldershot	Aldershot	I. Army-Corps	Aldershot	West Croydon (S).
Aldershot	Aldershot	14th Brigade	Aldershot	Chatham (S).
Aldershot	Aldershot	15th Brigade	Aldershot	Chatham (S).
Aldershot	Aldershot	16th Brigade	Aldershot	Chatham (S).
Aldershot	Aldershot	2nd Cavalry Brigade	Aldershot	Aldershot (S).
Aldershot	Aldershot	4th Cavalry Brigade	Aldershot	Weolton (S).
Aldershot	Aldershot	10th Brigade	Aldershot	Tilbury.
Aldershot	Aldershot	1st Division	Chatham	West Croydon.
Colchester	Colchester	11th Brigade	Colchester	Colchester.
Curragh	Curragh	5th Brigade	Curragh	West Croydon.
Curragh	Curragh	3rd Division	Curragh	Aldershot.
Curragh	Curragh	8th Brigade	Curragh	Warley.
Curragh	Curragh	5th Division	Curragh	Tilbury.
Devonport	Devonport	2nd Brigade	Devonport	West Croydon.
Dublin	Dublin	7th Division	Devonport	Chatham.
Dublin	Dublin	6th Brigade	Dublin	West Croydon.
Dublin	Dublin	7th Brigade	Dublin	Warley.
Dublin	Dublin	II. Army-Corps	Dublin	Warley.
Dublin	Dublin	3rd Cavalry Brigade	Dublin	Dublin.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX H—continued.

ARMY SERVICE CORPS—continued.

Company.	Station.	How allotted on Mobilization.	Place of Mobilization where Personal and First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.
	London	1st Brigade	London	West Croydon.
	London	1st Cavalry Brigade	London	Hounslow.
	Portsmouth	9th Brigade	Portsmouth	Tilbury.
	Portsmouth	8th Division	Portsmouth	Chatham.
	Shorncliffe	17th Brigade	Shorncliffe (J)	Shorncliffe (J).
	Shorncliffe	9th Division	Shorncliffe (J)	Shorncliffe (J).
	Woolwich	4th Division	Woolwich	Warley.
	Woolwich	12th Brigade	Woolwich	Colchester.
	Woolwich	6th Division	Woolwich	Colchester.
	Woolwich	13th Brigade	Woolwich	Chatham.
	Woolwich	18th Brigade	Woolwich	Maidstone.
	Woolwich	III. Army-Corps	Woolwich	Maidstone.

(J) Small-arms and vehicles at Dover.

APPENDIX J.

LIST OF REGULAR BEARER COMPANIES AND FIELD HOSPITALS IN THE FIELD ARMY,
SHOWING THE COMPANIES OF MEDICAL STAFF CORPS FROM WHICH EACH IS
FORMED.

Unit.	Company from which the Unit is formed.	How allotted on Mobilization.	Place of Mobilization where First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.
No. 1 Bearer Company	18th (Home District) ..	1st Brigade..	London ..	West Croydon.
" 2 "	7th (Western District) ..	2nd Brigade	Devonport ..	West Croydon.
" 3 "	1st (Aldershot) ..	3rd Brigade	Aldershot ..	Aldershot (S).
" 4 "	2nd (Aldershot) ..	4th Brigade	Aldershot ..	Aldershot (S).
" 5 "	14th (Dublin District) ..	5th Brigade	Dublin ..	West Croydon.
" 6 "	16th (Cork District) ..	6th Brigade	Cork ..	West Croydon.
" 7 "	9th (Eastern District) ..	11th Brigade	Colchester..	Colchester.
" 8 "	11th (South-Eastern District)	17th Brigade	Aldershot ..	Dover (S).
" 9 "	12th (Woolwich) ..	9th Brigade	Woolwich ..	Tilbury.
" 10 "	6th (Southern District) ..	15th Brigade	Portsmouth	Chatham.
No. 1 Field Hospital ..	18th (Home District)..	1st Division	London ..	London.
" 2 "	7th (Western District) ..	2nd and 3rd Cavalry Brigades	Plymouth..	Aldershot.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX J—continued.

LIST OF REGULAR BEARER COMPANIES AND FIELD HOSPITALS, &c.

Unit.	Company from which the Unit is formed.	How allotted on Mobilization.	Place of Mobilization where First Regimental Equipment is kept.	Place where Second Regimental Equipment is kept.
No. 3 Field Hospital ..	10th (Thames District) ..	6th Division	Chatham ..	Chatham.
" 6 "	13th (North British District) ..	2nd Division	Aldershot ..	Aldershot (S).
" 7 "	14th (Dublin District) ..	4th Division	Dublin ..	Dublin.
" 8 "	16th (Cork District) ..	5th Division	Cork ..	Cork.
" 9 "	17th (Curragh) ..	3rd Division	Curragh ..	Curragh.
" 10 "	8th (North-Eastern District) ..	9th Division	Aldershot ..	Aldershot (S).
" 11 "	9th (Eastern District) ..	1st and 4th Cavalry Brigades.	Warley ..	Warley.
" 12 "	19th (North-Western District)	8th Division	Aldershot ..	Aldershot (S).
" 13 "	19th (North-Western District)	7th Division	Aldershot ..	Aldershot (S).

Bearer Companies and Field Hospitals do not exist as units in peace; they are to be formed on mobilization from the various companies of the M.S.C., supplemented by their Reservists.

The personnel of the Medical Staff Corps which remains surplus after completing the units for the Field Army is allotted to Garrisons and Base Hospitals.

The remainder of the Bearer Companies in the Field Army are formed by the Volunteer Medical Staff Corps, and are, therefore, not included in this table, which applies only to the Regulars.

(S) This equipment is at present at Southampton, and is included in the embarkation stores kept there for a foreign expedition.

APPENDIX K.

**SCHEDULE OF THE LISTS OF ORDNANCE STORES
REQUIRED BY UNITS, &c., ON MOBILIZATION,
REFERRED TO IN PARAGRAPH 35 OF THE
MOBILIZATION REGULATIONS.**

No. of List.	Units, &c.
<i>Field Army.</i>	
1	Staff of a Brigade of Infantry.
2	Battalion of Infantry—Buff and Rifle.
2a	Battalion of Infantry—Guards.
2b	Battalion of Infantry—Militia.
3	Infantry Machine-Gun Section—Regulars.
3a	Infantry Machine-Gun Section—Militia.
4	Company Army Service Corps with Infantry Brigade.
5	Bearer Company, Regulars or Volunteers.
6	Staff of a Division of Infantry.
7	Regiment of Cavalry.
8	Corps Troops Ammunition Column.
9	Infantry Divisional Ammunition Column.
10	Field or Fortress Company, Royal Engineers (as Field Companies).
10a	Field Company, 1st London Engineer Volunteers.
11	Company Army Service Corps with Infantry Division.
12	Field Hospital.
13	Staff of an Army-Corps.
14	Regimental Staff, Corps Artillery.
15	Regimental Staff, Corps Engineers.
16	Pontoon Troop, Bridging Battalion, Royal Engineers.
17	Head-quarters and Sections of Telegraph Battalion, Royal Engineers.
18	Field Park, Royal Engineers.
19	Company Army Service Corps with Corps Troops.
20	Company Army Signallers, dismounted.
21	Staff of a Brigade of Cavalry.
22	Regiment of Household Cavalry.
23	Cavalry, Machine-Gun Section.
24	Mounted Infantry, Machine-Gun Section.
25	Cavalry Brigade Ammunition Column.

APPENDIX K—*continued.*SCHEDULE OF THE LISTS, &c.—*continued.*

No. of List.	Units, &c.
26	Mounted Detachment, Royal Engineers.
26a	Balloon Section, Royal Engineers.
27	Companies of Mounted Infantry.
28	Company Army Service Corps with Cavalry Brigade.
29	Military Police, personal outfit and saddlery.
30	Army Post Office Corps, personal outfit.
31	Medical Staff Corps, arms and accoutrements.
<i>Units allotted to Garrisons and unallotted Units.</i>	
37	Unallotted Household Cavalry Regiment.
36	Unallotted Cavalry Regiment—Line.
34	Royal Artillery—Garrison.
35	Battalion of Guards—except those in Field Army.
32	Battalion of Infantry—Regulars (garrisons).
38	Battalion of Infantry—Regulars (unallotted).
33	Militia—Artillery, Engineers, and Infantry (garrisons).
39	Militia—Infantry Battalion (unallotted).

NOTICES OF BOOKS.

Rulers of India. Ranjit Singh. By Sir LEPEL GRIFFIN, K.C.S.I. Oxford: Clarendon Press, 1892. Pp. 223. Size $7\frac{1}{4}'' \times 5'' \times \frac{1}{4}''$. Weight under 1 lb. Price 2s. 6d.

A work in this form has long been wanted, containing as it does a short history of the master mind which moulded the varied elements of his co-religionists into the most formidable fighting machine it has ever been our lot to encounter in the East, whilst later on the sect from which it was raised provided us with the brave and trustworthy native troops and allies without whose aid and loyalty during the Mutiny our hold upon India would not have been re-established, except with a ruinous expenditure of blood and treasure, and whose conduct before and since in many a hill campaign on the N.W. Frontier and Afghanistan affords sufficient evidence that the race has not deteriorated in their military qualities since their submission to British rule.

This history has been written by one whose great experience on the spot renders him master of his subject, and following as it does closely upon that of "*Scindia*," and the *Mahrattas* (in the same valuable series), which brought us to the south bank of the Sutlej, the volume now before us carries us over that stream into the interesting country of the Five Rivers, and gives a clear insight into the origin of the Sikhs, their occupation of the Punjab, and ultimate formation by Ranjit Singh into a vast military organization to the time when the want of foresight and the military incompetence of his successors led to their rupture with the British Government, with the result which has added one more to our vast responsibilities in the East.—M. G.

From Her Majesty's Stationery Office has just been issued in a shilling pamphlet, under the title of *The Capture of Valparaiso in 1891*, the reports of the Commander-in-Chief and the Chief of the Staff of the Constitutional Army. The pamphlet has been prepared in the Intelligence Division, War Office, and is preceded by a preface from the pen of Captain C. A. COURT, Rifle Brigade, Staff Captain, which we give *in extenso* :—

Introduction.

Early in January, 1891, a revolution broke out in Chili, the army declaring for President Balmaceda and the navy for the Congress or Constitutional party.

Owing to the above cause, and to the peculiar configuration of the country, the operations of the first few months were of a desultory character.

The Dictator was unable to undertake offensive operations against the northern provinces, where the Congress party was firmly established, owing to the difficulties of the country intervening between Coquimbo and Iquique and the want of sea power; his opponents were also unable to act decisively in the south until they had organized an army sufficient in numbers, discipline, and armament to overcome the resistance they were certain to encounter at Valparaiso.

The organization of an expeditionary force, nearly 10,000 strong, for this latter purpose, occupied the Congress party for the first seven months of the year; volunteers came in freely, and after a time a sufficient supply of arms and ammunition was secured, including some 4,000 *Männlicher* rifles.

It was necessary for the Congress party to strike hard and quickly.

Balmaceda was expecting an ironclad and two cruisers from France, the arrival

of which, coupled with the sinking of the Congress ship "Blanco Encalada," might have shifted the balance of sea power and have altered the whole conditions of the war.

It is true that the Dictator had a force of over 20,000 men at his disposal, and was, in particular, superior in artillery, but 6,000 men of this force held Coquimbo and were cut off from Valparaiso when their opponents landed in Quinteros Bay.

The Congress cause was also undoubtedly popular with all classes of the people; it was animated by a determined spirit, and in leadership was far superior to its opponents.

Balmaceda's forces were, on the other hand, to a great extent recruited by force, and the manner in which prisoners and deserters joined the ranks of the Congress party after their landing testifies to the unpopular nature of the Dictator's rule.

Prompt action was therefore demanded by all the circumstances of the situation, and the success of the operations amply justified the foresight of the Constitutional leaders.

The following reports deal solely with the operations from the 20th to the 28th August, which resulted in the capture of Valparaiso, and the overthrow of the Dictator.

They afford numerous and instructive lessons of especial interest to a maritime Power, while from a broader point of view they prove, if proof were needed, that the command of the sea, although the first essential for a sea Power, is not and cannot be of itself sufficient to secure *decisive* results in war, which can only be attained by the intimate alliance of both the land and sea forces of a State, acting together in close conjunction for the attainment of the national aims.

It would be unwise to attempt to make any final or definite deductions from the tactical experiences of the Chilians during this campaign, owing to the peculiar composition of the opposing forces. At the same time, there are certain points to which attention may be directed, as they serve as indications, not without a certain practical value.

About a third of the Congress troops, namely, the infantry and artillery of the 2nd Brigade, one battalion of the 3rd Brigade, and the rifles were armed with the Mänlicher repeating rifle, pattern 1888. The effect produced on the Dictator's forces by the rapid fire and long range of this weapon greatly contributed towards their demoralization and defeat. On the other hand, the expenditure of ammunition was so great that at Concon the troops armed with the Mänlicher, going into action with some 150 to 200 rounds a man, were reduced to only 10 per rifle at the close of the fight, and owing to the difficulty encountered in bringing up a fresh supply, they were, for twelve hours, practically disarmed, and the victory could not be followed up.

It should also be noticed that a reliable eye-witness counted 300 Mänlicher rifles at Concon and Placilla with the bolts blown out.

With regard to the battles themselves, we have little information as to the formations adopted by the opposing forces; the Congress troops appear generally to have formed thick lines of skirmishers, followed by supports, while their enemies, as a rule, seemed to have retained closer formations, and to have shown little experience in the choice and occupation of ground.

In artillery, Balmaceda was distinctly superior, but for the most part the guns used by both sides were mountain pieces, and the ground was unfavourable to the movements of the field batteries.

The cavalry on both sides were not much used for reconnoitring purposes, and neither side secured any advantage in this respect.

The Congress cavalry executed some bold charges on infantry and guns in both actions; at la Placilla, Colonel Canto asserts that the attack of his cavalry decided the fate of the battle.

In both battles we find, reproduced on a smaller scale, the difficulty attending frontal attacks and the necessity of combining with them a strong effort against one or both flanks.

Lastly, the resort to night marches will not escape notice, and attention should be directed to the disappointments and confusion which must inevitably attend

such movements in default of a highly-trained staff and troops thoroughly in the hands of their leaders.

The Science of Metrology; or Natural Weights and Measures. A Challenge to the Metric System. By the Hon. E. NOEL, Captain, Rifle Brigade. London: Stanford, 1889. Pp. 80. Size $8\frac{3}{4}$ " \times $5\frac{3}{4}$ " \times $\frac{1}{4}$ ". Weight under 10 oz. Price 2s. 6d.

Metrology is the "science of measuring." Captain Noel states that the question of metrological reform has been for nearly a century before the public, and that some efforts have been made at improvement, and some changes which can fairly be called "revolutionary" have been not only seriously proposed, but strenuously urged. Yet, on a subject in which it is generally acknowledged that reform is wanted, we have not hitherto been able, in this country or in America, to make up our minds what this reform should be. There are some points in metrology which require the handling of the scientist and specialist, but in its broad principles and ordinary details it is a subject within the reach of us all. Captain Noel endeavours to deal in a popular form with the subject, and to show that by very little alteration, by a little amending, the existing English measures can be welded into a system scientifically as well as practically superior to the metric, a system which he says is in many respects faulty. He claims for his own system that it is founded on *Nature*, and worked out on practical lines.

Captain, now Major, Noel has extended his efforts at reforms of this character to those connected with time, and in a shilling pamphlet, published also by Messrs. Stanford, and entitled *International Time*, produces a scheme for harmonizing the hour all the world round.

Alphabetical French-English List of Technical Military Terms, for Military Students. By MARIUS DESHUMBERT, Professor of French at the Staff College, author of "The Dictionary of Difficulties met with in French;" with a Preface by Colonel F. MAURICE, C.B. 2nd edition. London: Nutt, 1892. Pamph. Pp. 47. Price 1s. 6d..

Colonel Maurice writes: "The present list of corresponding terms is much more than a mere translation from one language to another. It required for its composition that the man who wrote it should not only be thoroughly acquainted with both languages, but that he should know well the regulations and organizations of both armies.

"In many cases it is quite as necessary not to attempt a translation, but to show that there is no equivalent in the one Army for a term used in the other. Thus, for instance, a man not thoroughly acquainted with the organization of the French Army would be sorely tempted, when he found the word 'Major-Général' in French, promptly to translate it as 'Major-General' in English. M. Deshumbert has to tell him that we have no equivalent in English for the position to which the name 'Major-Général' is assigned in French. . . . It very rarely happens that any one should acquire so complete a knowledge of the conditions of two countries in regard to a particular profession as M. Deshumbert possesses, and the English Army will certainly owe him a debt of gratitude for the assistance which in this matter he is able to render, and has rendered."

The Localization of our Forces Revised. By Major H. G. PURDON. London: Gale and Polden. Pamph. Pp. 36. Price 2s.

Major Purdon, of the North Staffordshire Regiment, puts forward a revision of our localization scheme, in which he proposes to rearrange the regimental districts in certain cases, in order to give them a fair and better chance of fulfilling their requirements, which many of them do not possess at present. Also in the case of Auxiliary Forces, it has been endeavoured to arrange them in a more symmetrical manner, and to establish a properly-distributed proportion between the different arms of our heterogeneous Reserves. To prepare a pamphlet of this kind, containing even only three dozen pages, must have necessitated a great expenditure of time, labour, and research on the part of the author, but it is to be feared that only

experts thoroughly versed in the intricacies and details of localization schemes can pronounce on Major Purdon's proposals any judgment worth listening to. The subject is one which might, perhaps, be usefully discussed at the Royal United Service Institution.

A System of Instruction for Small Patrols. Translated from the French of Captain B—, by J. FORMBY, Major 3rd Vol. Batt. The King's Liverpool Regiment. Published for the Manchester Tactical Society, by Stanford, London, and Cornish, Manchester, 1892. Pamph. Pp. 35. Price 6d.

This is an excellent little pamphlet, and it is strongly recommended as affording valuable hints to not only teachers in teaching but as supplying a knowledge of the minute details of patrolling.

Guide to Promotion: an Aid to Officers of all Arms in Preparing for Examination in Regimental Duties. Part I. *Ranks of Lieutenant, Captain, and Major.* By Lieutenant-Colonel Sisson C. PRATT (late Royal Artillery). London: Stanford, 1892. Pp. 200. Size $7\frac{1}{4}'' \times 4\frac{1}{4}'' \times \frac{1}{4}''$. Weight under 10 oz. Price 7s.

This part deals with discipline, duties, interior economy, movement of troops, arms, ammunition, and equipment. In the preface we are told, "The system of question and answer followed by the late Lieutenant-Colonel Bannatyne in his well-known 'Guide to the Examinations for Promotion in the Infantry,' has been adopted, but an attempt has been made to make the answers short, clear, and explanatory, instead of merely quoting *verbatim* the text-books."

Field Service Pocket Book. Arranged by Captain E. N. WATREN, 2nd Leinster Regiment, London: Allen. Size $5\frac{1}{4}'' \times 3\frac{1}{2}'' \times \frac{3}{4}''$. Weight under 8 oz. Price 5s.

This book consists of 25 pages of matter, containing memoranda for ordinary field and reconnaissance work. Then comes a "refill" section holding 18 sheets of writing, 12 of tracing, and 15 of waterproof sketching paper, each of which is $5\frac{1}{2}'' \times 6''$, and can be detached whole. The sketching paper is ruled in squares. Carbonized paper is provided for duplicates of messages. Two cases of envelopes are inside the covers, and black, blue, and red pencils are attached to the cover.

Text-Book of Fortification, for the use of the Royal Military College, Sandhurst. By Colonel G. PHILIPS, Royal Engineers, late Professor of Fortification, Royal Military College. 5th edition. By authority. London: Pardon & Sons, 1892. Pp. 310. Size $9\frac{3}{4}'' \times 6'' \times \frac{3}{4}''$. Price 15s.

Colonel Philips' book has always stood out pre-eminently from others of its kind as at once the best to teach from and the best to learn from. Thanks, we believe, to the present Director-General of Military Education, the educational establishments and classes have been saved from what at one moment threatened them, one text-book for general use throughout the Service; and the thanks of Sandhurst Cadets and Militia Officers are due to that high official for keeping for them a text-book so clearly written and so suited to their needs as that which is the subject of this notice.

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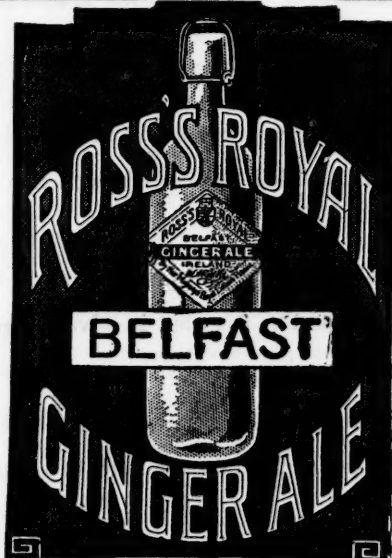
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EXTRACT FROM THE BY-LAWS.

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It is my desire to become a Member of the Royal United Service Institution; and I hereby request and authorise my Agents [or Bankers], Messrs. _____, to pay my Entrance Fee (£1) and Annual Subscription (£1) now, and as it becomes due on the 1st of January in each year to the Secretary of the Institution.

Signature.

Qualification
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STAFF COLLEGE—JUNE

Place.	Name.	Marks.
First	Capt. H. T. Kenney	3,355
4th	Capt. H. F. Leach	3,083
6th	Capt. E. W. M. Norie	3,007
8th	Lieut. C. D. Saute	2,979
9th	Lieut. R. A. D. Rowley	2,936
11th	Lieut. S. N. Devington	2,880
13th	Capt. C. H. Farnham	2,818
17th	Lieut. C. L. Nicholson	2,640
20th	Capt. H. E. Brander	2,573
24th	Capt. R. H. L. Warner	1,834

Selected for Admission.

Capt. the Hon. J. H. O. Rym, and
Capt. B. E. Mitford.

Places taken in the various subjects include—
Military History, First (highest obtained for many years), 3rd, 4th, 5th, and 7th; Topography, First, 2nd, and 4th; Tactics, 5th; Law, 5th, 7th, and 9th; Mathematics, 2nd, 3rd, 4th, 5th, and 10th; French, 3rd, 4th, and 7th; German, First, 3rd, 6th, and 9th (twice); Hindustani, First, 4th, 6th, and 8th.

MILITIA COMPETITIVE—MARCH.

In March, 1892, of the Sixty-two Successful Candidates SEVENTEEN were passed by Capt. James.

First	F. Godfrey Foxham	1,935
5th	W. C. O. Ash	1,896
7th	C. B. Prowse	1,887
8th	J. C. Mack	1,886
9th	C. D. Christopher	1,881
10th	A. E. O. Savile	1,881
15th	A. J. Leach	1,876
16th	D. J. Propper	1,858
17th	E. H. Hunter Weldon	1,850
20th	E. C. F. Wadhouse	1,835
24th	W. Marriott Dodding	1,800
27th	E. J. T. Bright	1,795
29th	T. K. Gaskell	1,792
34th	H. B. Scott Harden	1,751
35th	C. H. Fringie	1,709
CAVALRY, 6th	M. M. Little	1,663
ARTILLERY, 4th	R. W. Holman	1,943

* Prepared at the Country Branch.

In addition to the London Classes a COUNTRY BRANCH for Resident and Non-resident Pupils.

ARMY PRELIMINARY.—FOURTEEN

have passed this year in all subjects. The merit of an establishment must not be judged by one year only; equally great successes have been obtained in previous years, of which full particulars will be furnished on application.

In the three years '90, '91, '92—

ELEVEN passed for the Indian Civil Service.

TWENTY-ONE for Woolwich.

ONE HUNDRED and SEVEN for Sandhurst.

SIXTY-FOUR for the Militia Literary, exclusive of those who qualified at the other examinations.

ONE HUNDRED and FORTY-ONE for the Militia Competitive.

FIFTY-SEVEN for the Staff College.

EIGHTY-EIGHT the Preliminary Army Examination. Places taken by the above Pupils in '90, and '91, include FOURTEEN FIRSTS and TEN SECONDS in the various examinations. Places taken by them in different subjects which they took two, include FORTY-TWO 1sts, THIRTY 2nds, FORTY-ONE 3rds, TWENTY-SEVEN 4ths. These results are far above those obtained by any other tutor or school.

The CIVIL STAFF embraces thirty-three Gentlemen, of whom Twenty are University Graduates in high honours. The Military Staff includes Twelve Officers, of whom Five are Staff College Graduates in honours. The total number of Forty-five is far larger than will be found at any other establishment in England, and is sufficient to give that individual instruction to the pupils to which the above remarkable successes are due, and which for many years past have exceeded the results of any other tutor or school.

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has been opened for the Militia Competitive at Camberley, under the personal superintendence of Lieut.-Colonel W. R. FOX, late R.A. (Honours) Staff College, assisted by Lieut.-Colonel COOPER KING, late R.M.A., 1st Staff College.

MILITIA LITERARY—APRIL.

Place.	Name.	Marks.
5th	E. F. Aron	3,326
85th	Hon. R. F. Molyneux	3,709
44th	G. M. Soames	3,446
48th	W. J. E. Matthews	3,375
44th	H. F. Wickham	3,136

WOOLWICH—JUNE.

29th L. K. Stanbrough 6,945
And one other qualified.

SANDHURST—JUNE.

CAVALRY.

4th	W. K. Burridge	7,744
8th	H. A. Johnstone	6,822
12th	E. H. Bayford	6,816
—	* Lord Crichton	6,480

INFANTRY.

6th	H. E. Hutchinson	8,379
22nd	D. H. Blundell	7,432
27th	H. B. L. Alford	7,283
31st	M. B. F. Baker Oker	7,266
26th	P. B. Carlisle	7,260
32nd	T. Denman	7,098
53rd	F. A. Breal	7,080
59th	A. G. Grant	7,022
82nd	W. S. Ollivest	6,975
32nd	J. H. Kerrick	6,971
47th	W. O. Grant	6,813
63rd	C. L. Taylor	6,736
96th	A. Coast	6,728
109th	R. C. Gibb	6,694

WEST INDIA CAVALRY.

First J. A. H. Cuming 6,660

UNIVERSITY CAVALRY.

First	R. W. Denny	6,964
4th	E. Tatchell	6,962

(i.e., TWENTY-ONE out of the 137 successful Competitive candidates.)

QUEEN'S INDIA CAVALRY.

4th	B. D. Fitzpatrick	5,432
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* Subsequently admitted. First in the whole list.

